

# AMERICAN VETERINARY REVIEW.

JANUARY, 1897.

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## EDITORIAL.

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### THE MASSACHUSETTS BOARD OF CATTLE COMMISSIONERS.

For two years the veterinary world has had its eyes rivetted upon the Bay State, watching with the keenest interest the outcome of the system which she had inaugurated with the lofty object of detecting, controlling, and probably eradicating tuberculosis from the herds of that Commonwealth. That result was to have been accomplished by the aid of tuberculin, quarantine, and slaughter, and her regulations were deemed so much in accord with scientific conceptions that the step was regarded as a gigantic and intelligent experiment, which was not only to produce the happiest economic results for the stockmen of that State, but which would confer the greatest benefit upon science, and, if successful, would receive adoption in many, if not all, of the States of the Union where the industry is of large proportions. While murmurings of dissatisfaction have recently been heard that the powers of the Board were gradually being restricted by interested legislation, we regret to lay before our readers the letter of Professor Osgood, Chairman of the Commission, addressed to the Governor of the State, in which he gives a detailed account of the circumstances which have led him to tender his resignation, which the Chief Executive accepts. The story of the obstacles which the Commission has had to encounter in adverse legislation is very fully given

in Prof. Osgood's communication, and we print it herewith in full :

COMMONWEALTH OF MASSACHUSETTS,  
BOARD OF CATTLE COMMISSIONERS,  
52 VILLAGE ST., BOSTON, Nov. 30, 1896.

*To His Honor Roger Wolcott, Lieutenant Governor and Acting Governor :*

SIR :—I hereby beg to tender to you my resignation as a member of the Board of Cattle Commissioners of the Commonwealth of Massachusetts, and to respectfully request that it be accepted at once. My reasons for taking this step at this time are, that my convictions forbid my further implied responsibility in the execution of a law which was passed against my earnest protest, and which, in my opinion, involves the expenditure of a large sum of public money without adequate return to the State, especially in view of the fact that plain indications point to a still further divergence from what I believe to be the only wise and efficient system of dealing with contagious diseases among cattle.

I was appointed a member of the Board on the third of July, 1894, and soon became its chairman. I accepted the appointment at considerable personal sacrifice, because I felt there was need of prompt and vigorous action which should tend toward the eradication of tuberculosis from among the neat cattle in this State, the widespread existence of which I considered a serious menace to the public health ; and because I believed that the law of 1894, under which I was appointed, placed in the hands of the Board full and adequate power to enable it to cope with it successfully.

Following this, after a most thorough and careful consideration of all the facts, the Board came to the unanimous conclusion that by using the somewhat recently discovered tuberculin, as a diagnostic agent, they could, without harm to sound cattle, detect tuberculosis in the affected animals with very great precision ; and that by a careful and systematic examination of all the neat cattle within its borders, and the destruction of all found diseased, the State could, within a reasonable time, eradicate tuberculosis from its neat stock.

Acting under the provisions of the law of 1894, the Board in November, 1894, began such an examination in three of the southeastern counties of the State, which included the removal and destruction of the diseased animals and a thorough disinfection of the premises where disease was found ; and thereafter, until the law was changed, maintained a rigid quarantine over the territory in which the work had been completed. Had the Board been allowed to continue this work throughout the State, I believe that within a comparatively short time, and with an expenditure small in comparison with the good accomplished, the State would have been able to stamp out this disease.

While the plan adopted was capable of more or less modification in detail, I believe that no permanent good can ever be accomplished except by pursuing a policy which shall substantially embrace this method of operation.

At the time when the report of our Board was submitted to the Legislature in January, 1895, the systematic work had but just been inaugurated, and no fair opportunity had been given for fully testing its efficacy. Even at that stage, however, it was yielding extremely good results ; results far better, I believe, than can be accomplished by any other system, or than has ever been accomplished in any other part of the world in this class of work. In our report for that year the Board unanimously recommended a continuation of this work.

The Legislature of 1895, however, disregarding the recommendations of the Board, enacted a law depriving the Board of the power to use tuberculin as a diagnostic agent, without the written consent of the owner, and, as a necessary result, took away from the Board the power to continue its systematic inspection. At the same time the price which the State must pay for animals destroyed as tuberculous was practically doubled. The passage of this law gave to owners the power of preventing this Board from detecting and destroying diseased cattle for the public good ; thus changing the entire spirit of the law from an act to eradicate disease, into an act enabling owners of diseased cattle to have only such animals as they desired examined, condemned, and paid for by the State at, practically, their sound values. No law, having for its object the removal of a widespread but secret danger to the public health, can ever be successful where the right of the authorities to make inspection for the purpose of detecting the presence of the danger is dependent upon the whim or interest of the person having control over it.

At the time when this restrictive act was passed, it was understood to be but a temporary measure for the period of one year, to enable the owners of cattle to become better informed as to the value of tuberculin and the general advantages of the work. Had I believed that the law of 1895 was to continue for a period of more than a year, I think I then should have declined to continue as a member of the Board. Feeling, however, that it was but a temporary check and recognizing that in the meanwhile considerable good could be accomplished through the examination of isolated herds, I felt that my duty required that I should further continue in my office.

Soon after the passage of the law of 1895, and after the abandonment of the systematic work, the Board inaugurated the system of examining entire herds upon the written request of the owners. In this way considerable good was accomplished. The disease was removed from local centres, and the milk to this extent purified and made safe for human consumption. Such a system, if continued, would have been of material good to the State, but even then the good accomplished would not have been commensurate with the expense, because the Board had no power to prevent the owners from thereafter introducing diseased animals ; and inasmuch as untested animals could be purchased at a less price than those that had been tested, and as the State paid the full value for the animals if afterwards found diseased, the owner had no pecuniary inducement to keep his herd free from subsequent contagion.

The Legislature of 1896, against the express wishes of the Board, and contrary to my conviction personally expressed to the committee having the matter especially in charge, passed a law which not only continued the restriction of the use of tuberculin, but at the same time so limited the manner in which the appropriation could be expended as to render it impossible for the Board to continue further even the examination of isolated herds upon the owners' request.

Under the provisions of the law as it now stands, the Board is not only powerless to take any effectual general measures to protect the public food-supply derived from neat cattle against contamination by the germs of tuberculosis, but, further than this, when a badly diseased animal has been discovered, the fair presumption being that others equally as dangerous are in the same herd, the Board is powerless to compel a proper examination of that herd to ascertain the fact. Its whole work is now practically limited to the examination and destruction of animals in which the disease has so far advanced that it can be detected by a physical examination made by local inspectors, a large proportion of

whom have not been specially trained. A physical examination, even when conducted by those having the highest skill, fails to detect the disease, in a large percentage of cases, and consequently, can never prove satisfactory, if eradication of the disease is the object in view.

On September 30th, the Board issued a general order to all the inspectors in the State, providing for a regular and thorough inspection, by physical examination, as provided by law, of all neat cattle throughout the Commonwealth, and directing that such examination be completed before December first. The time for this examination has now expired, and the work of the Board for the present year is, therefore, practically ended.

While the expenditure has necessarily been large, a considerable portion of the appropriation still remains in the hands of the treasurer, while there are but a few days of the current year left to be covered.

Feeling, therefore, that there can be no permanent improvement of the herds in the State commensurate with the expenditure involved, and that there is little promise of such legislation as will make such improvement possible, I am convinced that I cannot consistently remain a member of the Board.

Very respectfully yours,

F. H. OSGOOD.

The Governor sent the following acceptance :

COMMONWEALTH OF MASSACHUSETTS,  
EXECUTIVE DEPARTMENT,  
BOSTON, Dec. 7, 1896.

*Dr. Frederick H. Osgood, Chairman Cattle Commissioners.*

DEAR SIR :—In accordance with your expressed wish, I accept your resignation as member of the Board of Cattle Commissioners, to take effect this day.

I regret that the Commonwealth is to lose your faithful and efficient services.

Very truly yours, (Signed) ROGER WOLCOTT.

The REVIEW deeply regrets the circumstances which have necessitated the action taken by the Chairman of the Board, for it feels that the profession has lost a grand opportunity to have profited by the results which promised so much. The profession of the State should unite to reinstate the law of 1894, and we have no doubt that they will receive assistance from all intelligent sources which are not hampered by individual interest. As showing the sentiment of the press, we quote two extracts from Boston papers upon the subject :

[*Boston Transcript, Dec. 9.*]

"In resigning his position of member and chairman of the State Board of Cattle Commissioners, Dr. F. H. Osgood has acted logically as well as conscientiously. As he clearly points out in his letter of resignation, he could not, with self-respect, continue his connection with the board, for by so doing he seems to be in accord with the laws which it is the duty of the board to administer. The laws relative to the inspection of cattle are so inadequate as in effect to be utterly useless towards stamping out tuberculosis or other diseases ; it would seem, indeed, as if their sole purpose were to prevent any interference



with the monetary interests of farmers and cattlemen, regardless of the spread of disease either among animals or the human family."

[*Boston Herald, Dec. 9.*]

" . . . He has also in a very marked degree met and overcome the opposition which at the outset presented itself to the use of tuberculin as a diagnostic of bovine tuberculosis. His work has satisfied the most intelligent and fair-minded portion of the community, and has won the commendation and compliment of veterinarians and agricultural experts who have been engaged on similar lines throughout the country. The work inaugurated and carried forward in this State has been the pioneer and the model toward which other States are now advancing. . . ."

Since the above was in type, we learn with pleasure of the appointment of Dr. Austin Peters, of Jamaica Plain, to the place on the Board made vacant by the resignation of Prof. Osgood, and we trust that the energy, intelligence, and enthusiasm which he will take with him into the office may be instrumental in great good to the cause of the scientific conception of the Commission, and that he may be the nucleus around which may gather a movement to restore the original law.

At a meeting of the State Board of Cattle Commissioners, held on Tuesday, Dec. 22d, for the purpose of reorganizing, Dr. Austin Peters was elected Chairman and Dr. Jno. M. Parker (who was recently appointed to succeed Prof. Chas. P. Lyman) was selected as Secretary.

#### OPENING ADDRESSES.

The custom of delivering addresses at the opening of a course of lectures in scientific institutions is, if we are not in error, an Anglo-Saxon habit which has found its way across the Atlantic; and, like many other habits, has for years maintained a foothold, especially in medical colleges, and, of course, the example had to be followed by veterinary institutions. There has been of late, however, a retrogression. Medical colleges have in several instances ceased the delivery of the opening lectures, and probably the same fate is reserved to it in veterinary colleges.

It is not our object to consider their usefulness or their value—often of no interest as being addressed to young students entirely ignorant of the subject presented to them; often treating of branches of their studies which are not at all understood

by them. It is seldom that their delivery is required, or, at least, if they are justifiable, it seems to us that it is when a newly created institution opens for the first time its doors for the reception of a new and first class of students ; in other words, at the inauguration of a new school. Such were the circumstances attendant upon the one delivered by Prof. James Law, at the inauguration of the New York State Veterinary College.

What we have said above of the value of addresses, certainly does not apply to that of Prof. Law—what he writes is always valuable ; what he reads is always useful and interesting ; what he permits publication of is always sure to deserve credit, to gather admirers, and to convince unbelievers. His address has done justice to the demands of a great State like New York ; it has shown the necessity for the establishment of what may be called a government institution ; it has pointed out the prospective positions that veterinary graduates may expect to obtain, and the services that they may then render to the community ; in fact he has well laid before his listeners the evidence that New York is still the great State of yore, progressive in all branches of education.

It is, however, to be regretted that Prof. Law has seen fit at the beginning of his address to advance *general* statements of a very reflective nature, which are undeserved, or, at least, not applicable in the case of those private undertakings which have been created in this country in behalf of veterinary medicine, especially in so far as New York State is concerned. The statements are erroneous and certainly unjust ; taking away, without exception, the credit which is due to those who have been pioneers in the work, which to-day only is undertaken in a thorough manner by the New York State Veterinary College. They, by honest, unselfish, and self-sacrificing devotion to the single purpose of building up a new science in this country, have made it possible to begin the work of educating young men under the broad and sheltering patronage of the great Empire State.

To say that "the founders of private schools were met at the threshold by the imperative questions: will the venture pay? will the name of the college bring us greater or more remuner-

ative practice? Will the prospective fees, fame and practice warrant the investment?" and again, "The pressure is heavy to shorten the curriculum, to admit ill-prepared candidates, to graduate large numbers irrespective of fitness, to abridge the already short course, *to sell diplomas.*"

No doubt these serious charges may, unfortunately, be true; but has it been such for all? Is it true of all the men who for years have worked for the elevation of the veterinary profession, have raised their requirements for matriculation, have increased their curriculum, have gradually demanded of their students a longer attendance at college, have sacrificed time and money, without the slightest consideration of what might come back to them? Are these men to be accused, as Prof. Law accuses them, of low and disgraceful motives? We think not. To involve them among those who may have been guilty of the accusations made by the honorable professor is not only an injustice, but an assumed pretension of priority in the work which might be accepted as true by those who do not know. He is too familiar with the history of veterinary medicine in America to believe what he has said; the conclusion is that he has given utterance to it for effect upon those who listened to him, and for the plaudits of the gallery, whom he knows is not conversant with veterinary history.

The New York State Veterinary College is welcome. It can compete with superior advantages with other veterinary institutions, but there is a fact, which must remain well established, that the private undertakings were the pioneers of veterinary education, that for some of them it is certain that veterinary history will register and recognize their deeds at their proper value, and will credit their work at a high estimation, a work which was carried out without expectation of fame, consideration of pecuniary return, and without the support of such a large institution as that to which the New York State Veterinary College is attached.

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ATTENDANCE BY CONTRACT.—“*Whereas*, Rendering pro-

fessional services at a stipulated fee per capita per annum is derogatory to the dignity of the medical profession, we, the undersigned . . . .” This is the preamble of a resolution passed by one of the medical associations of California, which will no doubt be considered by similar organizations at an early date, and the question may wisely present itself: Will the day ever come when there will be among veterinarians sufficient respect for the value of their services and of their time to enter it among the codes of ethics of their various societies? We know that this is quite a serious question and one which will probably raise a general protest from our colleagues, as especially in these days where the struggle for life has assumed such proportions that the motto of *cut rates* seems to be the only one guiding many of our brother practitioners. The question of treating animals by contract is no doubt so well entered into veterinary practice that it seems hardly probable that it will ever be eradicated, and, yet, when one takes into consideration the numerous objections that pertain to the fulfilling of a contract, the annoyances to which the contracting parties are exposed, the unnecessary demands on one side, the possible tendency to neglect or to postpone answering a call, suspicious of being useless, etc.,—all these might be justifiable for any one to reject the plan of medical attendance at the rate of so much a year. We certainly know of some of our colleagues who have never made contracts, and who never regretted it. If the thing is ever to be considered, it must be through our societies, and first of all the National Association. The United States Veterinary Medical Association, might, we think, make it one of the first subjects to be discussed at the next meeting.

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TO CORRESPONDENTS.—We beg to say to a large number of our correspondents and collaborators that many communications and papers are crowded out of this month's REVIEW on account of the heavy tax upon our pages; that their contributions are gratefully acknowledged and will be published as early as possible.

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ORIGINAL ARTICLES.

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## THERAPEUTICS.

A CRITICISM ON THE ABUSE OR PROMISCUOUS USE OF PURGATIVES AND OTHER OLD AND ERRONEOUS LINES OF TREATMENT OF CERTAIN EQUINE DISEASES, TOGETHER WITH SUGGESTIONS FOR MORE MODERN AND CORRECT TREATMENT.

By E. L. QUITMAN, M.D.C., CHICAGO, ILLS.

A Paper read before the Illinois State Veterinary Medical Association.

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Therapeutics is that branch of medical science which considers the application of remedies as a means of cure.

It is not my intention to attempt to cover the whole field of therapeutics, which would be almost an impossibility for one man; but it is my purpose, first, to criticise the methods pursued by so many veterinarians; and, second, to bring to your notice my treatment for a few special and yet common diseases of the horse. Not that I have anything new and startling to offer, but simply to call to your mind the value of some of our old and well-tried drugs when used in proper combination and in proper instances, as well as to call from you criticism of the same and suggestions as to other forms of treatment for the ailments specified.

The lack of success of many veterinarians in the treatment of disease lies in the fact that they follow day in and day out a single line of treatment, a single formula for each complaint; aye! even worse than that, a half dozen or a dozen formulæ for the treatment of all of the diseases to which animals are subject. A fever mixture, which must cure all febrile conditions, no matter what the cause of the exalted temperature nor the condition of pulse, etc. A colic mixture that must cure all kinds of colics. A liniment for all forms of lameness, and so on.

With a moment's thought you can call to mind veterinarians



who have a formula for a *fever mixture*, which is prescribed in all febrile diseases, it matters not whether that ailment be simply an ephemeral fever, a case of pneumonia, pleurisy, bronchitis, lymphangitis, laminitis or perhaps cerebro-spinal meningitis; and, again, it matters not what stage the disease may be in when the doctor is called, *that* fever mixture must do. Why? Simply because the doctor does not know any better; and, alas, we have too many of him.

Another example. Frequently a young practitioner, one who maybe has been out of college perhaps five or six years, consults another and possibly an older veterinarian, regarding a certain case; the question is asked, What treatment have you been giving the animal? Too often he will answer, especially if both are graduates of the same college: Why, I am giving Dr. So-and-So's fever mixture, or using Dr. Somebodyelse's liniment; and the chances are that he will be surprised if you do not happen to remember those prescriptions; it does not occur to him that there are some men who think for themselves, who are not constantly using some one else's brains.

The most successful practitioner can only be so by thinking for himself, following no single line of treatment, and by studying and knowing the individual drugs, their characteristics, physiological action, therapeutical application, how and *why* they produce certain effects and their doses, as well as correct method and proper time of administration. Study these, and not "prescriptions"; know them, and when called to a case prescribe only the drugs that are indicated, and not limit yourself to a few general prescriptions. It is the application of the *right drug* at the *right time* and in the *right place* that will cure disease and bring you success.

I will give you another and more common illustration—"a shot that will hit more birds." How many veterinarians are there who would not think of starting the treatment of such diseases as laminitis, lymphangitis, tetanus, colics, skin diseases and other inflammatory diseases without the administration of a purgative. Have you stopped to think whether or not this is

necessary or even once tried to treat any of the diseases mentioned without the use of purgatives? Take, for example, lymphangitis. I dare say ninety-nine out of a hundred start their treatment of that disease with a purgative, either aloetic or saline. Does it not take a certain number of days for recovery, say 4 to 6 or 8 days for the fever to abate and another week or ten days, and may be more, for the swelling to leave? It does; now, the diseases mentioned will get well just as quickly, if properly treated, without the use of purgatives, proving that their use is merely on a theoretical basis, and is still being followed out by thousands of veterinarians simply because some author said it was the proper thing, and you have not stopped to think.

Then, there is azoturia. Don't they die even when purgatives are administered, and get well just as often when they are omitted? They certainly do; then why this promiscuous use of purgatives?

Forty years ago we were in the "bleeding age," and now we're in the "physicking age."

Purgatives or laxatives are prescribed by all of us in some diseases (that do not need them), and by some of us in all diseases. I've seen them prescribed in sprains of joints, simple diseases of the eye, and other instances where they did and could not do any possible good. Why is this? Have you ever stopped to think whether their general use is necessary, or are you using them simply because Profs. Williams or Robertson advise it? Have you ever tried to treat the above mentioned diseases without the use of purgatives? If not, do so at your first opportunity, and I am sure you will be just as successful without them as with them, and in many instances more so, for I am sure many a horse would recover from colic where death ensues, as a result of the purgative, by virtue of its causing greater irritation of the bowels, bringing on enteritis. The motto, *viz medicatrix naturæ*, should be carried constantly in the mind of every veterinarian. The greatest abuse of drugs in veterinary practice lies in the too general and

promiscuous use of purgatives; some administer them at the outset of every disease and ailment, inflammatory diseases—local and general; sprains, wounds, etc., not thinking that in many cases the purgative so weakens the animal as to greatly lessen the chances of recovery; the animal is weakened when his strength should be harbored. I will ask, of what use is a purgative in, say, broken knee or a case of conjunctivitis, and yet they are administered by many in those ailments. I am aware of the “lowering-blood-pressure-and-attracting-surplus-blood-to-the-bowels theory,” but will not local astringents produce the same effect, *i. e.*, of lessening the amount of blood in a given part?

To return to lymphangitis, how often have you noticed that the purgative does not act in one case, and again acts too severely in another. It is characteristic of that disease that in one case an ounce of aloes will fail to act, while in another six drachms will act too severely, possibly producing superpurgation, and as a result of either extreme the case is usually aggravated. You are, no doubt, by this time, asking how I treat that disease. My treatment is as follows: If I am called to the horse before swelling takes place, which is rarely the case, I start the treatment with a strong sweat (you will say this acts the same as a purgative, but it does not, as it is a great deal more certain, and an animal recovers from the effects much quicker). I use the following mixture for that purpose:

℞ Ext. pilocarpi fl., ʒ ss-ʒ i.  
Tinct. arnicæ rad., ʒ jss.

M. Sig.: Give at one dose in a pint of water, repeat in an hour if necessary.

Spiritus ætheris nitrosi or liq. ammonia acetatis may be added, but I find the mixture as above rarely fails. Have the animal covered with a woolen blanket. An hour after free diaphoresis is established I start in with the following mixture:

℞ Tr. acon. rad., ʒ ivss.  
Ext. bellad. fl., ʒ jss.  
Ext. colch ici sem. fl., ʒ iij to ʒ ivss.  
Spts. æth. nit., q. s. ad. ʒ xviii.

M. Sig.: One and one-half ounces every three hours in half pint of water.

This treatment frequently aborts the attack or results in very much lessening the severity of the disease. Where the disease

is not aborted, or where I am not called before the swelling takes place, I continue the febrifuge treatment until temperature is normal, which usually occurs in from four to six days. During this time, my local treatment consists of hot bathing, and occasionally I use a lotion containing 4 to 6 ounces of tincture of chloride of iron to a pint of water, especially if there is a possibility of the disease having been of a traumatic origin. For diet, during the inflammatory stage, I allow only bran mash, hay and plenty of water, and, if in season, grass or carrots. Just as soon as temperature is normal I put the case under the following treatment to reduce the enlargement of the leg :

R Iodi. resub.,  $\bar{3}$  iij.  
 Potas. iod.,  $\bar{2}$  jss.  
 Aquæ,  $\bar{6}$  xij.

M. Sig. : One ounce three times daily in 5 or 6 ounces of water, half to one hour before feeds.

I now order gentle exercise and a little oats. Where the case has been extraordinarily severe and the swelling very hard and stubborn, I use the following locally :

R Ungt. hydrarg.  
 Ol. olivæ, aa  $\bar{2}$  iv.

M. Sig. : Apply with gentle friction once or twice daily.

With the foregoing treatment (occasionally deviated) I have yet to meet the first case which does not yield to it, the leg in every instance going down to its normal size, even where there have been repeated attacks. For those animals that are in poor condition, or where one has had repeated attacks, I prescribe Fowler's solution of arsenic in  $\bar{3}$  ss to  $\bar{3}$  vi doses three times daily, as a tonic, commencing just as soon as the swelling has disappeared, and continuing for three to four weeks, and have the horse laid up (gentle exercise permitted) for as long a time as owner will permit, insisting on at least two weeks after recovery, so as to prevent a return of the attack.

Now let us consider

*Laminitis*.—Even in this disease I do not administer a purgative, not that it exactly works an injury, but because it does not hasten the cure, and, again, in very severe cases, which are naturally very weakening, I consider that the horse will need all

of his strength, and a purgative is certainly weakening. I treat these cases as follows: If called promptly, I produce free diaphoresis as described for lymphangitis; after that is established the following is prescribed:

R Tr. acon. rad.,  $\mathfrak{z}$  iv to v.  
Ext. bellad. fl.  $\mathfrak{z}$  j.

M. Sig.: One drachm every  $2\frac{1}{2}$  or 3 hours in water, continued for 24, 36, or 48 hours or until pulse is considerably depressed.

Then the following mixture is prescribed:

R Tr. acon. rad.,  $\mathfrak{z}$  iii to iv.  
Ext. bellad. fl.,  $\mathfrak{z}$  jss.  
Spts. æth. nit.,  $\mathfrak{z}$  viij.  
Liq. ammon. acet., q. s. ad.  $\mathfrak{z}$  xxxvj.

M. Sig.: Three ounces every three hours in twice as much water.

After acute symptoms have subsided the horse is put on the iodine prescription, as mentioned under lymphangitis, to promote the absorption of any inflammatory exudate which may have taken place; also a blister is applied to the coronets, and long rest advised. During the acute stage I use locally heat and cold alternately, *i. e.*, cold soaking and hot poultices. I figure that this alternate contraction and relaxation of the blood vessels acts similarly to electricity in revivifying their vital power. And, again, where I differ in my treatment from a large number of veterinarians, I do not immediately have the shoes removed, but leave them on, except in certain cases (where they are new, or tight, or a country horse but recently in the city), then I remove them and replace loosely. I find that the animal suffers less pain with shoes on than when off. I consider that when the animal is barefoot, the wedging of the frog into the foot interrupts the circulation of the engorged vessels, and that the pressure of the sole onto the inflamed and congested villi (which are naturally involved) causes more pain and aggravation of the disease than the little expansion permitted by the removal of the shoes and frog pressure will do good. Try this plan of treatment, and I am sure you will agree with me. I frequently remove the shoes after the acute and painful symptoms have subsided, leaving them off for 24 or 48 hours, and then replacing them.

A few words about that ailment that frequently puzzles



young practitioners and is often erroneously diagnosed by their older brothers; that condition which to ordinary observation closely resembles laminitis, except that the characteristic pulse is absent, and the feet not so hot. It often occurs after cold rains or snowstorms, or as a result of the horse being exposed to wind or drafts. The animal will have the characteristic stiffness, move with great difficulty, show pain and distress, and assume the positions usual in founder, etc. I term this condition *rheumatic founder*, or it may properly be termed "pseudo laminitis," so closely does it resemble regular laminitis. It yields, though, readily to the following treatment, often in 24 or 48 hours:

R Quin. sulph.,            ℥j.  
 Pulv. colchici sem.,  
 Pulv. bellad. fol.,  
 Sodii salicylatis, aa ℥iij.

M. Fiat charts. No. xii. Sig.: One powder every three hours in syrup.

Have animal warmly clothed.

*Pneumonia*.—How often these cases are lost, or a chronic cough remains, or the animal's wind injured, by improper treatment. The cause of this lies in the fact that too often the veterinarian forgets that this is a self-limiting disease. Of course, I am considering a case that is past the congestive stage. If you are called while there is only pulmonary congestion a powerful sweating mixture, with counter-irritation, followed by a suitable febrifuge, will frequently relieve the congestion, and thus abort the inflammation which would otherwise have followed. But after true inflammation sets in the disease cannot or should not be cut short. Too often in pneumonia powerful antipyretics are prescribed, resulting in cutting down the fever before nature is ready, or before the morbid products have been thrown out of the system; the inflammatory material is left to dry up, as it were, in the lungs, and causes a chronic cough or some of the conditions existing under the general term of "bad wind"; or perhaps the treatment has been very depressing, and the animal dies. The treatment of pneumonia should be of a stimulating character, one that does not too quickly cut down the fever, but rather one that simply limits the extent of the

fever, stimulating every excretory channel to throw out effete material, and thus removing the cause of it. I follow out two plans in treating pneumonia—that is, I do not confine myself to them, but indicate the prescriptions as a type. Take the one example in those cases where there is a fair pulse, I may prescribe the following:

℞ Tr. acon. rad.,      ʒ iii (note the small dose).  
 Ext. bellad. fl.,      ʒss.  
 Spts. camph.,      ʒ iii or ivss.  
 Spts. æth. nit.,      ʒ vi.  
 Liq. ammon. acet., q. s. ad. ʒ xxxvi.

M. Sig.: Three ounces every 3 hours in same amount of water.

As a counter-irritant I use the following:

℞ Ol. sinapis,      ʒ i.  
 Aq. ammon. fort,      ʒ i.  
 Ol. gossyp. sem.,      ʒ iv.  
 M. Sig.: For external use.

This is applied with just enough friction to cause irritation, and yet not blister. I order any diet that the animal may eat, making it as nutritious as possible. In extremely severe cases where the animals refuse all food, I drench them with milk, eggs and whiskey. A bucket of fresh water is kept constantly before the patient, and, of course, woolen clothing, with comfortable quarters, good ventilation, and an even temperature, is desirable. In winter it is best to keep the temperature at a point between 65 and 70° F., a stove being placed in or near the patient's quarters if necessary. Of course, this cannot be followed out in all cases. If there be a very weak pulse, I may add to the mixture, where a liquid mixture is desirable, such heart tonics or stimulants as fluid ext. of digitalis, in, say, half-drachm doses when given every three hours, or, as I prefer, tr. stiophanthus in two-drachm doses. I treat more cases with the following line of treatment than I do with the above:

℞ Quin. sulph.,      ʒ i.  
 Pulv. ammon. chloridi,      ʒ iij.  
 Pulv. ammon. carbonatis,      ʒ ij.  
 Pulv. camph.,      ʒ i.  
 Pulv. potassii nit.,      ʒ iij.

M. Fiat charts. No. xii. Sig.: One powder every three hours (given in form of an electuary).

I often prescribe but one of the above ammonia salts, according to circumstances, *i. e.*, condition of pulse, liver or bowels.

Where resolution is tardy I apply a fresh application of the counter-irritant, and prescribe the iodide of ammonia in two-drachm doses every four hours, either in addition to the other treatment or alternated with stimulants and occasionally Fowler's solution three times daily. I invariably follow up every case of pulmonary disease with a tonic. If the case has been a mild one, I may prescribe simply Fowler's solution in  $\mathfrak{z}$ ss to  $\mathfrak{z}$ vi doses three times daily, according to size of horse, arsenic being a most valuable pulmonary tonic. If the case has been a severe one and great emaciation and weakness results, I give the following :

R Ac. arsen.,  $\mathfrak{z}$  ss.  
 Quin. sulph.,  $\mathfrak{z}$  iv.  
 Ferri sulph. ex.,  
 Pulv. nucis vom., aa  $\mathfrak{z}$  jss.  
 Pulv. gentian. rad.,  
 Pulv. potas. nit., aa  $\mathfrak{z}$  iij.

M. Fiat charts. No. xii. Sig. : One powder three times daily with syrup enough to form a paste.

*Tetanus*.—I will not attempt to criticise the treatment of this disease for the reason that it is so varied. I will say, however, that it is a mistake to pin your faith to simply antispasmodic and sedative treatment, as it is certainly a germ disease, and as such calls for antiseptic treatment. The difficulty has been to prescribe an antiseptic that will be carried in the blood as such. As to the value of the antitoxin treatment, I can say little, on account of the various reports being very contradictory regarding its value ; and as to the value of hyposulphite of soda, which has been lauded by a few, I have my doubts. As to antitoxin, the various reports do not show any greater results than from the usual old line treatment. For some time past I have had unusual success in this disease with the following treatment : First, as to the local treatment, I follow out the usual methods, *i. e.*, extirpation of the part in some instances and the use of antiseptics. In tetanus following nail wounds (or other wounds, for that matter) I do not believe in the use of poultices, even when containing antiseptics, as they always should when applied to a wound ; the poultice with its heat acts as a suitable pabulum for the growth of the germs. I apply the antiseptic,

usually corrosive sublimate, either by direct injection or on absorbent cotton, or, in the case of nail wounds, I may have the wounded member soaked in an antiseptic solution. I do not in this disease administer a purgative, except possibly giving Glauber's or Epsom salts in the water or bran mash (not even these since using the following treatment):

R Ferri sulphatis exsic,  
Cupri sulph., aa  $\zeta$  jss.  
Pulv. bellad. fol.,  
Pulv. gentian. rad., aa  $\zeta$  iij.

M. Fiat charts. No. xii. Sig. : One powder every four hours until there is some signs of abatement of the symptoms, then three times daily until almost well, and then continuing twice daily until complete recovery.

I have in several instances added quinine to the above. Strange to say, in all of the cases in which I used this mixture (six in number) there has been no bother from constipation, and, notwithstanding its astringent nature, the stools have been from a normal to a slightly soft condition, probably due to the belladonna, which is said to markedly increase the secretions after a brief suppression. The gentian is used more to cover the irritant action of the sulphate of copper than anything else; although its value in keeping up the patient's appetite is not to be overlooked. That there is value to this treatment, I have no doubt, for the reason that I have now had five cases out of six recover; I could not administer this remedy to the one that died on account of jaws being entirely locked and throat paralyzed. Three of the five recovered cases were severe cases, one, whose jaws remained open only about half an inch when I first saw him; then, again, the cases recover in about three weeks, where, under the old treatment, about six or eight weeks would have been necessary had they recovered under it. The animals recovered in good flesh, indeed, usually in better condition than they were before the attack.

Now, a few words regarding *Gastric and Intestinal Flatulence*.—In gastric flatulence I find that, while most veterinarians use hyposulphite of soda, they do not use it in large enough doses, usually prescribing it in 3, 4, or at the most 6 ounce doses. If this is the case with you, and you are not satisfied with its

action, try it in 8 to 12 ounce doses (the granular salt being the best), and you may add creolin to the mixture in 3 ij to 3 iv doses. In intestinal flatulence the hyposulphite of soda is of no value whatever. Try some of the following antiferments: Salicylic acid, naphthalin, or creolin, a favorite mixture of mine in these cases being

R Tr. capsici,  
Spts. ammon. arom., aa 3 jss.  
Ac. salicylici,  
Naphthalinum, aa 3 iij.

M. Sig. : Give at one dose in a pint or pint and a half of water.

Of course, such drugs as turpentine, spts. camphor, oil of peppermint, sulphuric æther, etc., may be added. Anodynes in these cases are rarely needed, as the pain, or rather the distress, is caused by the distension of the bowels, and possibly interference with respiration; besides, anodynes are apt to produce paralysis of the bowels, especially where they have been distended for some time. Of course, I believe in the use of the trocar, and when the pulse is in fair condition and the intestines are not paralyzed, I may use eserine. As to the administration of an aloetic purge after cases of colic, I would admonish you to be careful. Where the colic was due to congestion of the bowels or where great irritation and prostration exist, a purgative may set up enteritis and make a bad ending to what might have been a success. Often aloes is administered when oil should be used, or perhaps when the bowels should have been left alone. In impaction of the bowels, it is well to ascertain whether that condition is due to lack of secretion or to paralysis of the intestines.

If to the former the regular purgative may be administered; if to the latter it will be useless and possibly dangerous, except oil is admissible; give something on the plan of the following: Fluid extract belladonna, fluid extract physostigmatis, and fluid extract nucis vomica, and I sometimes add fluid extract colchicum seminis. This is best administered in small, often-repeated doses. As to rectal injections, I prefer glycerine; inject about two ounces at a time, adding a little water, if necessary, to thin sufficiently for your syringe to take it up.



This plan of treatment will arouse the nervo-muscular apparatus of the bowels, which is at fault in this instance.

*Regarding Liniments.*—I would like to know why so many veterinarians think that a liniment is not complete unless it contains some irritants, such as turpentine, aq. ammonia, etc. Often where a straight anodyne liniment should be used, as in fresh sprains one is used containing some irritant, usually aq. ammonia (commonly tincture iodine), which by virtue of making the skin dry, harsh and tender, keeps up the lameness even after the effects of the original ailment have worn off. For an anodyne, and but slightly stimulating application, try the following:

R Tr. acon. rad.,      ℥ iv.  
Ext. bellad. fl.,      ℥ iij.  
Linim. saponis,      ℥ iv.  
Dist. ext. hamamel. q. s. ad. Oj.

M. Sig.: Apply three or four times daily.

Tincture of opium may be added, and water, or dilute alcohol used instead of the hamamelis. Should I wish it to have more stimulating properties than the above I prefer such drugs as tincture of myrrh or tincture of capsicum, say of each 3 or 4 ounces to the pint or pint and a half mixture. Regarding turpentine, you will find from 2 to 4 drachms to the pint to be enough for a local stimulant in a liniment; more than that irritates.

It is advisable to leave a leg open for a few minutes before bandaging over any liniment containing alcoholic or irritating substances. Where there is great heat and pain, I have found the following peculiar liniment to be very beneficial:

R Tr. acon. rad.,      ℥ iv.  
Ext. bellad. fl.,      ℥ iij.  
Pot. nit. pulv.,  
Ammon. chloridi pulv. aa      ℥ iij to iv.  
Aquæ,      Oj.

M. Sig.: Cooling liniment. Apply several times daily.

There are a number of other instances in the practice of veterinary medicine that are open to criticism, but think I have made mention of enough for one time. Hoping the foregoing will be profitable to some of my hearers (readers), or, at least, will open up a discussion that will lead to improvement, I will bring my article to a close.

**VETERINARIANS AS SANITARIANS.**

BY CLAUDE D. MORRIS, V. S., PAWLING, N. Y.

A Paper read before the New York State Veterinary Medical Society at Buffalo,  
Sept. 5, 1896.

"Time and experience test the works of man ; and the highway of progress is covered with the fragments of countless inventions. The creeds, the dogmas, the social relations of one age become the by-words or the antique curiosities of the next. Men do what they can, and coming generations pardon their errors, but judge their work as they ought. What is good lives, what is bad dies ; this is the general rule." We are living in an age that demands of every man the best fruits of his mental and physical energies to meet the exigency of the times. The closing years of the nineteenth century is the ripening stage of the greatest minds that have ever lived. The abundant fruition of the strongest hand that holds the pen or the mechanic's tool. As the months roll by responsibilities multiply upon the shoulders of those who think and work the hardest in the ranks of the professional, architectural, and scientific classes. The struggle is to reach the high peak of human endeavor. Never before have such auspicious opportunities for usefulness and preferment among its members been laid upon the threshold of our profession as lies there to-day. The man of ability and thoughtfulness readily appreciates the situation, who with willing hands grasps the rough material fresh from the sources of inexhaustible supply in the professional field, to mould and to polish the roughened stone into a character of usefulness, beauty, and perpetuity. A profession, that within a short time has been looked upon with an air of disdain and ridicule by men in other professions, is now beginning to be recognized and accepted as a factor beneficent in the great problem of social economy. Thus it is, that which has been accepted in the past as the acme in the science has served its purpose well, but the onward tread of the wheels of progress refuse to accept as an integral the skill of the past, but on the other hand is demanding at the hands of the learned

the last deductions of the best products of their work. Civilization is gaining friends hourly and enlarging its borders daily. It is utilizing forces that hitherto were latent, that which in the past was refused, is now material of usefulness and adornment. As individual members of the veterinary profession we find ourselves to-day in the midst of momentous duties. Responsibilities which are not altogether new, but are forced to the front demanding a solution as one of the problems incident in our commonwealth. The question of sanitary science, and its practical application by the profession, is confronting us with irresistible force. In no small degree is the health and wealth of the Empire State dependent upon our ability and energy. Are we equal to the emergency? The results of our professional career can best answer the question. The consumer of animal flesh, and of dairy products, is largely at the mercy of the tradesman, with the exception of a few firms, whose sense of honor and justice in their business relations with the public is based on the broad principle of dealing with others as they should like to be dealt with. It is to this class of business men, and to veterinarians, that the millions in our State, who daily consume flesh and dairy products, can only depend upon as the proper persons to protect their table from unwholesome foods. The competition in the manufacture and sale of food products is exceedingly spirited these days. This rivalry does not always tend to increase the merit of the article. The spread of disease among animals themselves, the many avenues by which disease is transmitted from the lower animals to mankind, and its eradication, are questions, all of which require a solution at our hands.

There is no one article of food so universal in use as that of milk. Its composition possesses all the elements necessary for primary growth; it is the initial and only food for the newly born, and continues as such for months. One of its physical characters, is its susception of untoward influences. It will receive and convey the odor of its surroundings. The unpleasant flavor of certain vegetables, sour or fermentative foods which the cow may eat, are readily detected in the milk; and of all food

that reaches our table, none possesses a more genial habitation for nearly all forms of bacteria as milk. Not a year passes but that we have living proof of the communicability of disease from various sources through the medium of milk. Diseases that are not wholly infantile but attack man at all ages. Not only has it been proven that certain diseases incident to the bovine family have been carried through milk to man, but that diseases wholly allied to man have been transmitted through milk. Thus this medium is open to a double source of infectiousness; of the two sources of infection we find that in man lies the greater evil of the two. Aside from bovine phthisis, there are but few diseases of frequency in that family considered dangerous and liable to transmission through the products of the dairy, but in man we have a number of infectious diseases, which can be transmitted through this medium. Whether tuberculosis in man has its essential source in the bovine family or not, there are, however, certain conditions of the disease in the animal which seem even on the surface to be inimical to health, and when considered upon the ground of its possible relation and potency towards creating the disease in man, there is at once of itself a wall of defense very difficult to destroy. The Massachusetts Society for Promoting Agriculture, after making 121 microscopical examinations of milk taken from 36 cows, on 19 different occasions, found that the tubercle bacilli actually existed in the milk of 33 per cent. of the animals examined; and that the animals were actually affected with tuberculosis; that the udder was free from the disease, which was proven in all cases by careful post-mortem examinations. The animals selected for this test were known to have the disease. The object of the test being to prove whether or not the bacilli actually existed in milk taken from animals which had the disease in parts other than the udder. On the other hand, as we have intimated that by man, milk is environed with conditions which lay it open to serious and fatal consequences ere it reaches the consumer's table. The wonder is, it is not more so. A daily food so well calculated by constituents to be a suitable abiding place



for germ life, which develops and multiplies indefinitely, requires more than ordinary attention while in the hands of the producer and tradesman. A glance at the records, the frequent press accounts of the spread of infectious disease, proves beyond contradiction the value of the assertion. There are many cases on record, of which there is undeniable proof, of the spread of typhoid fever, diphtheria and many forms of enteric disease, through this medium alone. We beg to cite one prominent case which had more than local interest excited, occurring in the village of Stamford, Conn., a year ago last April. Typhoid fever began to appear during the early part of the month; no special significance was attached to its invasion, as at that time but a few cases had developed, but before the month was gone, 209 cases had been reported to the Health Officers. In the meantime, diligent search was on foot to find by what means or avenue this intruding enemy was seeking the life and happiness of the community; and before the fell destroyer had been found and from whence it came, it had as its claim 386 victims and 22 deaths. A short paragraph clipped from an article on the subject published in a New York paper at the time will explain. It says: "Every one of the cases has been traced directly to a foul well in the stabling shed of H. R. Blackham, a retail milk dealer on Greenwich Avenue, in that part of the city known as Waterside. A map was drawn, showing the location of the typhoid cases and Blackham's delivery route. The Stamford doctors have not driven off the milkman's route in their visits. Every house with typhoid patients was a stopping place for the milkman's horse. Dr. T. Mitchell Prudden analyzed the water from Blackham's well (which was located in the barnyard), and says: 'The number of living bacteria of various kinds in one cubic centimetre is 69,660. This number of living germs would be reasonable in sewer water or a cesspool.'"

The dairy industry is a very common one in our country; and especially is this true in the vicinity of our large cities. New York City receives its supply of milk along the line of railroads for 100 miles north, 250 miles west, and nearly 50 miles



south, to say nothing of the smaller cities and villages within this radius which receive their supply also. Of this large territory in the eastern and south-eastern portion of the State, nearly all of which is devoted to dairying, but a small portion is under sanitary inspection. In this field, I believe we can do a great work for humanity. Impress upon the dairymen the criminality of selling milk from cows which are suffering with disease, and that the act is none the less criminal by selling the animal itself, whose flesh ultimately reaches the table of some innocent consumer. A few sanitary principles should be in vogue at the dairy; thorough cleanliness, light and ventilation of stables, pure water supply and wholesome foods are the essentials which should enter into the management of the dairy. We should be in touch with the health officers in our immediate locality, working together in one common cause to maintain the health of the community. This applies more especially to children and the young, whose sensitive tissues and bodies of susceptibility, if they reach normal maturity, depend wholly upon the character of the food they receive. How often it is the case, the family physician can trace the enteric trouble in the babe to the milk can; and not infrequently do we hear of a case of tubercular meningitis in the child of a family whose record is as free from the disease as if the disease never existed upon investigation traced its source to the family cow, or the dairy from whence they had long purchased their supply. It is along this line of professional work that the veterinarian can make for himself a reputation worthy of his calling.

My fellow-practitioner, has it ever occurred to you, when making professional visits among your clients, to make a thorough investigation in search for the cause of the disease which is then under treatment, with the same unremitting vigilance with which you treat it; and how multiplied are the instances, at the conclusion, that the unsanitary surroundings are sufficient cause for the malady. In no other way can we manifest greater professional skill than in being able to remove the cause of disease, rather than treating it successfully, and espe-

cially will this prove true at the dairy farm, whose product is placed on the market for exchange.

Harold Ernst, on the subject of infectiousness of milk, arrives at these conclusions: 1st. While the transmission of tuberculosis by milk is probably not the most important means by which the disease is propagated, it is something to be guarded against most carefully. 2d. The possibility of milk from tuberculous udders containing the infectious element is undeniable. 3d. With the evidence here presented, it is equally undeniable that milk from diseased cows with no appreciable lesion of the udder may, and not unfrequently does, contain the bacillus of the disease. Mr. President, are we imposing too much on your patience, and this assembly, by stating that it is our belief, that we as veterinarians and sanitarians fall short in our professional duties unless we use all reasonable means to impress upon dairymen who place their product upon the market, the necessity of as perfect sanitary conditions as is possible to maintain; and especially whenever it comes to our notice that milk is offered for sale from cows in an unhealthy condition of body, to use our best endeavor to have them removed from the herd, or report the case to the health officer. Neither should milk be sold from dairies in which certain diseases incident to the human family are prevalent, and associated with the dairy. Diseases which should bar the dairy product from sale are typhoid fever, diphtheria, pulmonary phthisis, croup, scarlet fever, common measles, German measles, small pox, erysipelas and syphilis. There is room for much reform in the dairy sections of our State; and who among the scientists is better qualified to perform so important a public function than the veterinarian. I will not go into the details of the dairy, which are many and complex, aside from what has already been said as to cleanliness, the method to be pursued and the material used is quite essential.

A thorough sweeping down of the walls and ceilings of the stables twice a year, spring and fall, then applying a rich coat of whitewash and carbolic, which is both a disinfectant and parasiticide, the maintaining of water-tight floors and gutters, so

that all the excreta can be removed without finding lodgment beneath the floors ; with good drainage in the yards ; also no wells in the vicinity of the yards ; and during the months in which the cows are stabled, they should be groomed daily, for the purpose of removing particles of stable dirt and their own excrement, which is very liable to find its way into the milk pail, thus becoming a source of contamination. It may seem needless to state that as soon as the milk is drawn from the cows it should be cooled to a temperature of at least 60° F. and kept in an atmosphere free from all odors or contaminating influences of whatever nature, until it is ready to be taken to market. We believe, that as the result of carelessness and ignorance on the part of some dairymen, premature graves have been dug for children ; that the bright hope of their maturity, which was twin in the breast of the parent at their birth, has been broken and ran away in bitter tears. If the wealth of a nation lies in the character of the extent of area, in its hidden resource of priceless material, and its commerce, then its greatness lies in the character of its human flesh. A strong arm and a sane brain are necessary to lay the foundations of true greatness, and it is in the newly born babe where these conditions begin. The question of a final disposition of neat cattle when suffering with disease of a contagious and infectious nature among animals themselves, and capable of transmission to man, becomes a matter of vital importance in its relation to public health. The profession should be a unit on this question as best calculated by experience and knowledge to direct the public mind in this very important question, affecting as it does the health and wealth of the nation. What should be done with an actinomycotic animal ? Learned men in the profession differ as to the contagious character of the disease, except among bovine animals ; and I believe this is disputed by some ; the origin of the fungus, if of vegetation, and what relation does it bear to the animal ; if by contact through abrasion of the skin or by alimentation, then why may not man contract the disease from the same source independent of the animal ? However diversified opinion may re-

gard this disease, is it not well to give the doubt the preference? We would not be understood as sentimental, but we believe there are occasions when intuitive knowledge or science, or more plainly put, instinct, is to be relied upon, when doubt and ignorance abound. What man possessing a cultured sensibility, to say nothing of professional knowledge in the medical science, can make himself believe that the flesh of a diseased carcass, though it be only localized, receiving its supply of blood from the systemic circulation; giving off its effete materials in the form of a ptomaine, to be partially eliminated through the process of arterialization in the lungs; and then again the remaining fragments re-sent to all parts of the body; availing itself of every opportunity for lodgment in the tissues, though attenuated in vital form, must in time make general the same disease, that to outward appearance seems only local. The question of economy should be subordinate to that of health; therefore, we cannot admit that even thorough cooking is a sufficient guarantee to properly sterilize the meat. It has been shown by recent investigation, that in many diseases it is not the characteristic bacilli of the disease which produces the toxic infection, manifesting the symptoms of the disease, but that it is a sub-product; the result of the dead bodies of bacteria, a ptomaine, a soluble alkaloid, readily absorbed, capable of producing septic intoxication. "Nearly all authorities are agreed that the bacilli present in the blood of tetanic patients are few, and in animals in which the disease was produced artificially the blood was often found sterile, the microbes being found at the seat of primary infection, and in the tissues between it and the spinal cord, than in the blood itself." We must then conclude that the laboratory, from whence the ptomaines come, are the tissues in which localization takes place; and it differs not, whether the disease is local or general, if of importance and contagious in its nature, the blood and the tissues possess "the septic intoxication which is carried by the presence of dead tissue in the body in a state of putrefaction, from the presence of putrefactive bacilli, and that the immediate cause of the intoxication is the



absorption of pre-formed ptomaines from such a local focus of putrefaction." Are we justified in the light of present knowledge, touching so important a question, to assent by silence to the sale of a food product contrary to revealed knowledge? Or if, on the other hand, our busy life hinders personal investigation, that we may know from experience these facts, are we to doubt the result of investigation made by others who have investigated? When human life and happiness hinge on any one question, too much is at stake to admit of theory, long-drawn out deductions, and hair-splitting conclusions to prove that under such and such conditions certain agencies and elements are harmless. No, better things are expected of us. We are in a position to lead and become the sanitarians of our time. The transmission of disease by clinics, manifesting itself in typical form in other patients remote from the seat of infection, which, at the time being, are suffering slightly from some form of enzootic disease, or are to undergo some ordinary operation, is of sufficient importance to engage attention in our daily practice. Its influence relative to the commercial value of the lower animals is too significant to admit of casual treatment, the operator acting as the medium by which the infection is conveyed. I will cite two cases, one in which the present speaker was the medium of transmission in one case, and the other a regular practicing physician.

In the spring of 1891 we were treating a case of tetanus in a filly two years old. She and an own brother, one year older, were running together in an open shed. They were separated by putting a partition through the inclosure. After the filly recovered the owner wanted the horse colt castrated; this was done by the usual method of casting the animal, removing the testicles, with no bad results following. One week later we were called upon to castrate another colt five miles distant from the farm where tetanus had existed, using the same casting rig. In this case I ligatured the spermatic artery with sterilized catgut, the colt, apparently, doing well until about one week later, the owner reported that something was wrong with the colt,



and wished I would go out and examine him. As soon as I saw the colt, the symptoms presented were an open book portraying the trouble,—it was tetanus in all its agony. Without going into the details, which I afterwards did to prove from whence came the germs of the disease, we will conclude the clinic by stating the fact, that the bacilli of tetanus was on the ropes and straps of the throwing rig, and was thus conveyed to the wound of the scrotum. After relating this incident to a physician of large experience, he unbosomed a like circumstance in his own practice. He was treating a case of peritonitis which was the result of a wound in the lower third of the abdomen, the wound presenting septic symptoms. One day after dressing the wound he was called to a case of midwifery, in a woman enjoying ideal health; delivery occasioned slight lacerations, labor lasting only three hours. The third day he noticed evidences of inflammation in the parts, extending to the mucous membrane of the vagina. Again, without going into details, which he related, the Doctor was satisfied that by his hand he had transmitted the germ of sepsis to a healthy person. Surgical sanitation means more than ordinary cleanliness. It means perfect sterilization of hands and instruments. In a diversified practice, this danger is more imminent, as it brings in contact with the medium a greater number of avenues through which to spread infection. A few months ago we were called to see a case, that upon examination proved to be glanders, which was under treatment by an empiric, who did not recognize the disease; he also had under treatment at the same place the favorite cat, suffering with a lacerated wound on the arm; strange to say, that in nine days this cat had developed the disease sufficient to make diagnosis easy. Herein lies the danger; and how often it comes to the surface in practice; the patient apparently doing well, soon we observe complications, which are hard to account for; they are absent in the literature on the disease; if then, these symptoms are not the natural sequel, what are they? Experience tends to confirm the belief: that too often we are the medium conveying the germs of disease.

The need in the profession to-day is a closer application to sanitary principles governing the treatment of diseases, as well as the prevention of disease. Preventing disease based upon its pathology. The influences of inheritance. The transmission of functional peculiarity associated with this inheritance of soil and the transmission from parent to offspring of certain conditions, apparently pertaining to the tissues and predisposing to disease, is a question for concern as vital as the treatment of disease when precipitated. We can no longer cast aside the necessity of the hour. We are in the field of activity, we must perform. It becomes us therefore to do our part well, take on the harness of rich opportunity, toil for the benefit of our race, and at the end of labor reap reward.

### INFECTIOUS OPHTHALMIA OF CATTLE.

BY W. F. WEESE, V.S., OTTAWA, ILL.

A Paper read before the Illinois State Vet. Medical Association.

The geographical distribution of this affection, which I have taken the liberty of calling "Infectious Ophthalmia," is difficult to determine owing to the absence of literature on the subject and published observations by practitioners. That it prevails in the Western and Southwestern States is evidenced by shipments of cattle to this locality, "feeders" frequently being affected on arrival or manifesting the disease a few days subsequently. The assertion that our native cattle only become affected through shipments of cattle from the West is not borne out by observations, the writer having seen the disease develop among dairy herds under circumstances not warranting that conclusion.

It prevails for the most part during the months of July and August, cool weather and frosts causing an abatement of its infectiousness and a suspension of the active pathological changes in those cattle already suffering from the malady. The etiological factor in its production exerts itself in different degrees of severity, not only in one herd, but in different outbreaks, and its infectiousness differs in transmissibility as much as the pathological alternations.

The causation of the disease, according to our present views of purulent inflammations, must be attributed to the presence of schizomycetes. The micro-organism responsible for this particular disease has not been definitely determined, nor systematically studied, so far as the author is aware. Leber, Berliner, Erberth, and others have experimented with fungi on the cornea. By inoculations upon the cornea they have produced purulent inflammations which spread rapidly, involved the substance of the cornea and resulted in purulent iritis, which conditions have been attributed to migration of the fungi to deep portions of the eye. These conditions are approximately attained in the natural course of the disease under consideration, although experimentally the diseased conditions are only produced by direct inoculations. Corneal ulcer antedates abscess of anterior chamber, which would lead one to infer that the infection came from without. The infiltrated superficial lamellæ of the cornea soon break down, the focus of suppuration lies bare and this presents favorable conditions for migration of germs to the internal structures of the eye. The writer believes that flies are the medium through which many infections are consummated.

The disease rarely assumes an epidemic character, spreading at most to adjacent farms between which there is usually found to be more or less direct communication of attendants, by means of whom the contagion can doubtless be carried.

In large herds, where the animals are not housed, it is rare to have over fifty per cent. become affected, without antiseptic precautions or treatment. Under more restrictive methods of keeping cattle the percentage will be materially increased. Many cases will make a spontaneous recovery in two or three weeks, a variable number will lose one or both eyes, the latter termination requiring two or three months for its consummation and subsidence of inflammation.

Clinically, the contamination of healthy cattle in an infected herd may be obviated by rigid precautionary measures, of which isolation of affected cattle may be cited as the fundamental rule of action and the unaffected animals treated by free applications

of a bichloride solution to the region of the eyes, supplemented by smearing the lids with an ointment which will be effectual in keeping flies away.

The first observable symptoms are swollen lids, intense lachrymation, photophobia with its consequent spasm of the orbicularis, congestion, pain and opacity of the cornea, to be followed by a staphylomatous bulging of the cornea due to intra-ocular pressure. In one or more days the discharge becomes muco-purulent, and if the disease is not arrested at this stage the inflammation rapidly involves the substance of the cornea and deeper structures of the eye. Inflammation of the cornea is usually diffuse and affects the proper corneal tissue, although it may be limited to the epithelium on external surface. Keratitis is almost an invariable sequence in advanced cases. The cornea presents an opalescent appearance, and the formation of an ulcer is preceded by a stage of infiltration and the inflamed spot is a little raised and more densely opaque. The ulcerative process often spreads widely, eats deeply, becomes complicated with corneal abscess or abscess of anterior chamber (hypopyon), iritis, choroiditis and synechia. Perforation of the cornea is not an infrequent termination, especially in those cases which have not received remedial interference while the disease is in its incipient stage. The alternations resulting from iritis cannot be observed till after the cornea has sufficiently cleared to permit inspection. The danger of adhesion of the iris to capsule of lens should be anticipated, however, and if possible such a termination frustrated. Formative opacities of the lens seem to be a rare termination of the diseased processes. Limited to the subjective symptoms usually, in the absence of focal illumination and the ophthalmoscope, we are led to believe that such conditions are sometimes left behind, which only produce visual aberration and hence are of no particular consequence practically. Cataract, however, is sometimes complete or progressive.

*Treatment.*—It is much easier to prescribe treatment for a wild western steer, irritated by a degree of blindness, than it



is to execute the details of application. One of the first requisites of treatment is to protect affected animals from direct light as much as possible. The early stage of the disease is best treated by either cold or hot applications followed by injections of astringent antiseptics, a very effective application being a solution of sulphate of zinc combined with hydrastis. If the muco-purulent discharge is present and profuse, painting the conjunctival surface of the lids with a solution of nitrate of silver—five grains to the ounce of distilled water—will be found serviceable. It is well to use a solution of atropine by routine until the disease has reached its height, on the presumption that iritis may be present, and its diagnosis hampered by the opacity of the cornea.

Atropine relieves pain, lessens the tendency to iritis and mitigates ciliary congestion, but we do not think it should be used too persistently, especially when there is pus located in the anterior chamber, for the reason that it narrows the area and contracts the vessels of the iris and thus retards rather than hastens the absorption of pus. Eserine should be substituted where ulcers are present and complicated with hypopyon. Eserine enlarges the surface of the iris and dilates the ciliary arteries and thus favors absorption of any deleterious exudate or pus in the anterior chamber. Persisted in, however, it will cause a congestion of the ciliary zone and increase the irritability of the eye. These symptoms usually coincide with the cessation of corneal infiltration and the commencement of vascularization of the ulcer or the formation of the vessels of repair. When this stage is reached eserine should be discontinued. Calomel sifted into the eye after the subsidence of active inflammation is beneficial in clearing up any opacity of the cornea. The sheet anchor in the treatment of keratitis is the yellow oxide of mercury ointment, five grains of medicament to the ounce of vaseline. A piece as large as a pea placed beneath the lids once daily and the eye held shut until it is well spread by the membrana nictitans is the usual treatment.

Surgical interference is not to be resorted to outside of curet-

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ting ragged ulcers unless there is imminent danger of a rupture of the cornea from intra-ocular pressure due to hypopyon and a weakening ulcer. When such an operation is decided upon, it is best performed by passing a small knife through the cornea and cutting across the ulcer, making a good sized incision. The pus in the anterior chamber is not usually fluid, but can be withdrawn from the eye in the form of a yellow, viscid mass. Care should be exercised that no inclusion of the iris in the wound is permitted. In the event that trouble is experienced from that source, clipping away a portion of the iris with the scissors may be resorted to; the eye thoroughly cleansed, dusted with iodoform and closed by compress of absorbent cotton, supported by strips of cloth and bandages, which can be better held in place by using Burgundy pitch plaster.

The dressings should be removed and re-applied as often as deemed expedient. All procedures in the treatment should be attended with all available antiseptic precautions, the details of which require no explanation in this paper.

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## REPORTS OF CASES.

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### CEREBRO-SPINAL MENINGITIS.

By SAM'L. S. BUCKLEY, D.V.S., Maryland Agricultural College, College Park, Md.

During the latter part of August I received a telegram from President \_\_\_\_\_, of this place, asking me to report immediately. I reached here at night, and was told that a gentleman living across the country had a couple of sick horses and would send for me the next day. I read the following note from the owner: "I have lost within the last twenty-four hours three valuable young horses, which I have every reason to believe have been poisoned. I send part of the intestines for analysis. Please have it attended to and I will be over on Monday to explain more fully."

Although this gentleman had been over during the day before I had reached here, I was able to learn but little more than his note explained. The next morning I saw our chemist (also an M.D.) and found that he had made tests for those poisons

that were likely to have been used, but that the results had been negative. He had not seen the owner of the stock, and therefore knew nothing of the history.

Early in the afternoon the coachman came for me, and we started on a sixteen-mile drive. I mention this merely to show that I had plenty of time to get at some of the history. The negro, however, was very uncertain about many points, and I was not much better informed when I reached there than before starting.

I got a brief history from the owner while walking towards the stables, and began to suspect that there was more indication of cerebro-spinal meningitis than of poisoning. He stated that on the Thursday before he was watching his three-year-old colts in the pasture, when he noticed one apparently stagger and fall, and in a very short time died. He and a couple of his tenants were talking over the affair and trying to account for the suddenness of it, when another died, almost without showing any signs of sickness. The next day a third died, and poisoning was suspected. The intestines of this one were sent to the college for analysis, together with the above note. This animal showed symptoms like one I shall describe later. On Saturday a mare that was suckling a colt was noticed to be drooping, and did not eat nor drink anything. She was not noticed to have made any manure during the day. The next day she died. On Monday a second mare, also suckling, was affected, and was the same one I saw on reaching there Tuesday evening. A third mare that had been but little used, and therefore on pasture most of the time, showed evidence of being ill at this time.

As mare No. 2 was beyond recovery, I gave my attention to No. 3. I attempted to give a ball, and found the pharynx filled with a wad of grass. After removing this I gave the medicine in solution. This was very hard to do, as the animal seemed to have great difficulty in swallowing. Acting upon the success of Mr. Lockhart, of New York, with strychnine, as described in Finlay Dun, I gave this hypodermically. I then left her to more carefully examine No. 2. She was ten hours before, so I was told, not only in good condition, but quite fat. At that time, however, she was very thin and emaciated. Her temperature was  $105^{\circ}$ . Her pulse at one time would be scarcely perceptible and a few moments later would be much stronger and very rapid. I would have destroyed her at once, but I wished to watch the case and the effects of aconite, which I gave in view of the symptoms presented. As it was then rather late in

the night, I left her, and was very much surprised the next morning to find her still alive. The owner being willing, I destroyed her at once, and held a post-mortem.

When ready to destroy her, I was for a time puzzled as to the manner in which I had better do it, as I did not wish to injure the brain, and I was afraid that I might lose the congestion if I bled her. However, I opened the carotid and jugular, and ran this risk. I observed that the blood was somewhat darker than normal. The pharynx was filled with a wad of fodder precisely like No. 3. The œsophagus was normal, the stomach and small intestines were empty and whitish in appearance; the large intestines were normal and contained hardened fæces. The bladder was full, but I failed to save the urine. The other organs were normal in appearance. I then exposed the brain and a little of the spinal cord. The vessels of the meninges of the brain and a little of the cord were engorged with blood. Naturally that on the lower side was more pronounced, owing to the position of the animal. After nearly three months preservation in alcohol this engorged condition is very marked.

After holding the post-mortem, the owner of the place and myself went over the farm to try to locate the cause of the trouble. The farm contains something over 1600 acres, and his pasture lots, as he called them, were good sized farms in themselves. That particular lot, where his horses had last been, I found high and sloping, with a southeast exposure. Comparatively little of this was marshy, but this marsh contained the spring and quite a little grass. As this place was cool, I concluded that the animals spent most of their time there. Since that time, the gentleman has written me, he thinks they drank at a place where there were about 40 hogs, that they kept the water in a filthy condition and thus contracted the disease. As evidence, he says "all his carriage horses and those work horses that were watered at the well, did not contract the disease."

The general symptoms, taking those two seen by me as typical of all, were as follows: The animals at first appeared droopy, and rapidly got weak. They were apparently unable to swallow food or water. The weakness increased and seemed to affect more especially the hind quarters. Constipation was marked. Finally the animals dropped, and I noticed a very peculiar condition; they all left traces of having indulged to a greater or less extent; while lying they continued to move both front and hind legs as if in the act of progression, and in so doing scooped out earth to the depth of ten or twelve inches. In the

mare I destroyed, this had been kept up for about fourteen hours. There was apparently complete loss of consciousness. The action of the heart varied. The temperature was high.

In regard to the treatment, will say that I gave the aconite because I thought the symptoms justified it, not that I had ever seen it recommended for this trouble. Mare No. 3 received the strychnine and solution of aloes; however, on the following day she died.

My recommendations were to make a complete change in the diet; to thoroughly clean the stables, and to keep the stock from this pasture.

Since that time he has had no trouble with the rest of his stock. These have been my first cases with that trouble since graduation; though three years ago, when on the eastern shore of this State, I saw some cases almost identical. At that time there were said to have been about fifty horses that died of this trouble within a radius of ten miles from where I was stopping. This locality, lying between the Chesapeake and Delaware bays, seems to have periodic outbreaks.

#### LEUCOCYTHÆMIA IN A COW.

By Prof. S. STEWART, Kansas City, Kan.

Thinking possibly the readers of the REVIEW would be interested in a brief account of what seems to me an unusual case, I send you the following notes.

A cow was slaughtered for beef at a local abattoir. Post-mortem examination revealed general emaciation, with all the structures and viscera presenting the usual appearance of emaciated animals with the exception of the lymphatic glands and the spleen. The lymphatic glands in all parts of the body were greatly enlarged, varying in size from a walnut to a goose egg, and seemed upon section to consist of hypertrophied glandular tissue. The spleen, which ordinarily would have weighed about one and one-half pounds, weighed nineteen and one-half pounds and measured thirty-one inches in length, nine inches in breadth, and three inches in the thickest portion. Upon section the malpighian corpuscles presented themselves as nearly white bodies, many of them one-third to one-half inch in diameter, the remainder of the splenic pulp being normal in color and consistence. This condition was found in the anterior half of the organ; the posterior half showed evidence of inflammation and disintegration. The peritoneal covering of the latter half was covered with an exudate and somewhat adherent to all adjacent



structures. The glandular pulp was a light red color and the malpighian corpuscles were scarcely visible. As a microscopic examination of the blood was not made, a complete diagnosis could not be made, but from the lesions above noted this was probably a case of leucocythæmia.

This is the first case of this disease in cattle which it has been my opportunity to see. Some months ago like pathological lesions were found in a St. Bernard dog belonging to a resident of this city. Perhaps this disease is more prevalent among our domestic animals than we are wont to think, and I trust such cases coming under the observation of the readers of the REVIEW will be reported through its columns.

#### TWO CASES OF VOMITION WITH DIFFERENT RESULTS.

By DR. J. P. LAWS, Madison, Wis.

On the night of October 22, 1896, I was called to a horse belonging to the American Express Company that was suffering with flatulence. The man that had charge informed me that he had given a capsule containing muriate of ammonia and chloral hydrate. I gave four ounces of sulphate of sodium, dissolved in water, with one ounce of alcohol; also injections per rectum; repeated soda and alcohol every thirty minutes for three doses. Horse continued to get worse, so that it was necessary to use trocar and canula. This gave very little relief. Soon after this the horse began vomiting water and a very little feed. After this was comparatively easy. Told man in charge that stomach was partially ruptured, and that it was only a matter of time until death would be the result. So left stimulants and went home. On calling next morning was surprised to find the horse alive and seemingly a little better, but on examination found pulse very soft and weak. Temperature normal, and power of deglutition lost. (But was not caused by medicine burning throat and œsophagus.) This condition remained unchanged until the third day, when he began to pass fæces; could swallow a little water and feed. From this time on could see no change, until death occurred on the morning of Oct. 29. Unfortunately could not hold post-mortem.

In July, 1896, a bay horse suffering with flatulence of the stomach was brought to my hospital. I gave it soda sulph., dissolved in warm water, with one ounce of sulphuric ether added; repeated dose in thirty minutes, as horse was showing more pain. In about twenty minutes after giving the second dose horse lowered his head and began vomiting. There was



about one quart of undigested food expelled and a great amount of gas. In a few minutes horse was perfectly easy and wanting to feed, and was ready for work next morning.

#### SARCOMA OF THE NASAL AND MAXILLARY SINUSES.

By MR. C. TIETJENS, Student at American Veterinary College.

The patient was a grey gelding, 13 years old, and used for heavy work. Brought to the College Hospital clinic Wednesday, Oct. 28, with the following history: About six weeks previous the animal had been doing poorly, and a veterinarian had been called to examine him, when a diagnosis was made of pharyngo-laryngitis. At that time there was a profuse discharge from the nostrils, animal had great difficulty in swallowing, food and water returned through his nose and other symptoms leading to this diagnosis. About two weeks later, animal showing no improvement, paralysis of the throat was suspected and animal treated accordingly. At this time a small enlargement made its appearance on the left side of the face, even with the second and third molars. The patient, during all this time, showed no loss of appetite, but gradually became more emaciated.

When brought to the clinic animal presented the following conditions: The enlargement on the side of the face was about the size of an orange, measuring about three inches in diameter. Discharge from nose was very profuse, of foetid odor and greater from left nostril. The muscles of the throat were atrophied. The appetite was good, but deglutition was accomplished with difficulty, most of the liquids returning through the nose, all these symptoms leading to the former diagnosis of paralysis of the throat.

On opening the buccal cavity the hard palate presented a granulated surface. The last three or four upper molars on the left side were loose in their alveoli, there was a caries of the third molar, and the soft palate and fauces were found to be in a flaccid, relaxed condition.

A diagnosis was made of neoplastic growths of the sinuses and destruction of animal was advised.

On post-mortem the following lesions were found: The molars on the upper left side were abnormal, there being seven instead of six, there was a slight caries of the fourth molar, the fifth and sixth were ulcerated at their roots, the seventh was very loosely implanted in an oblique direction forwards and downwards, and was in a healthy state. The mucous membrane

of hard palate was destroyed from the second molar backwards, on the entire left side from the median line. The surface was raw, infiltrated with neoplastic growths and exhibited large granulations, these extending to and involving the cavity of the pharynx. They also perforated the soft palate, entirely or partially destroying it and interfered with its functions. The mucous membrane of the pharynx was slightly injected. On opening the sinuses those of the left side were found to be entirely obliterated by cancerous growths, specimens of which proved it to be of sarcomatous variety.

*Conclusion :* While the symptoms exhibited by the patient at the beginning of his illness would have justified the diagnosis of pharyngeal disturbances, it is pretty evident that they were but secondary in their effect, and that they were due to the condition of the soft palate, perforated through as it was by the development of the sarcomatous tumors. Of course the condition of the teeth and hard palate were also due to the same development, which was overlooked.

#### MALLEIN IN SUSPICIOUS FARCY.

By G. B. BLACKMAN, Student at American Veterinary College.

Through the kindness of Dr. Drake, the students of the A. V. C. were permitted to see and watch an aged grey gelding, in apparent good condition, which was suspected of farcy.

The Doctor was called a few days previous to see him. He found a small swelling of doubtful appearance in the intermaxillary space and administered to the horse a purgative, which operated freely, and the gland suppurated freely.

Entering the hospital Nov. 18, the animal had no discharge, no ulceration on the septum, a small tumor on the right side of the face, which when punctured allowed the escape of a thin yellowish pus; there was also one in the intermaxillary space discharging somewhat, and two others, one on the left side of the thorax, the other on the right shoulder. These were not discharging. There was a small abrasion on the skin of the off fore heel, said to result from an injury. The animal was left at the hospital for mallein test, and presented the following characteristic reaction :

Nov. 18.—2.30 P. M., IOI 2-5; 7 P. M., IOI 1-5; 11 P. M., IOO 4-5.

Nov. 19.—8 A. M., 99 4-5; received  $2\frac{1}{2}$  c. c. mallein in left side of neck. 10 A. M., IOO 2-5; slight puff at point of inoculation and a little soreness to touch. 12 M., IOO 2-5; swelling

increasing, more pain to touch. 2 P. M., 100 3-5; swelling and soreness about same. 4 P. M., 100 2-5; swelling and soreness about same. 6 P. M., 100 2-5; swelling increasing and soreness at point of inoculation. 8 P. M., 101; swelling and soreness about same. 10 P. M., 101; swelling increasing and soreness at point of inoculation.

Nov. 19.—8 A. M., 101 4-5; swelling more diffuse, with swelling of lymphatics of neck, very sore, abscess on side of face swollen to considerable size, some discharge from nose, no ulcers in sight in nasal cavities. 10 A. M., 101 3-5. 12 M., 101 3-5; swelling very painful, won't bear touching.

Nov. 21.—Temperature 101 3-5; appetite poor, did not eat oats; swelling at point of inoculation larger, more diffuse; swelling on right side of face larger; rather dull in appearance.

The condemned animal was destroyed, and at the post-mortem showed a large number of miliary tubercles, typical of glanders. The tumors of the outside of the body contained thin watery pus, with the characters of the peculiar nature belonging to the disease.

#### WHAT WAS IT?

By F. A. ZUCKER, D.V.S., Elizabeth, N. J.

A very peculiar case was presented to me on Sept. 23d. Was called to see a horse in the evening of this date.

*History.*—Had refused food the day before; was perfectly healthy previous to this time.

*Observation.*—Found a profuse discharge of saliva flowing from mouth; manger full of it, as the animal was trying to eat some oats. Offered him water, but he refused to drink. The left eye was very much swollen, and a watery discharge came from the nostrils. The tongue was swollen, and prevented the hand from reaching far into the pharyngeal cavity; teeth sharp. Temperature  $100\frac{2}{3}$ ° F., pulse normal in character and amount; otherwise animal perfectly well; looked bright and showed no distressive symptoms.

Gave a gargle of potassium chlorate and aqua camphora and belladonna.

Was called at 5 A. M. next day, but through some mistake did not receive message until 8.30 A. M. Found horse down, apparently lifeless. Owner said he had thrashed about furiously before I came. They had given a colic drench before I arrived. I immediately performed tracheotomy, but this gave little or no relief. The salivation was checked by the gargle. Every few

minutes he would kick and struggle with his legs, but could not raise his head. Breathing stertorous. The reflexes were visible, as he would respond when the cornea was touched or the ear tickled. After twenty-four hours, advised destroying the horse, as there was no improvement. They would not permit of a post-mortem, to my regret.

My theory is that the inflammatory products thrown out were carried down the trachea to the lungs and completely filled the air cavities. Hardly think there could have been a case of pneumonia with this history and symptoms.

#### A RECTAL "BALLOON."

By F. A. ZUCKER, D.V.S., Elizabeth, N. J.

This was not a mysterious case, but an interesting one. Was called to see a horse belonging to a colored man, which he thought had bloody piles, as he called it.

*History.*—The horse had colic the day previous, and was treated in New York, where he went every day. On arriving home that night he again showed signs of colic, and the man introduced a large sponge into the rectum. Upon withdrawal of the hand and sponge a large red mass also came.

*Observation.*—I was called two days later and found a large protruded sphere, which when percussed sounded hollow, or full of gas. Upon close examination found a laceration in the mucous membrane of the superior wall of the rectum and that this "balloon," as it were, was due to the inflation by the flatus being passed. If it were not for the inflamed and already putrefied condition due to maggots having gotten into it already, would have punctured it and allowed it to slip back.

Advised amputation, and, as the animal was 22 years old, gave a doubtful prognosis. Said he would let me know next day. Next day the "balloon" was almost twice as large, more flatus having gained entrance. I simply put an elastic ligature around the pedicle and told him to wash with creolin solution. Saw horse two days later and the mass was atrophied to a small knob, which previously measured twelve inches in diameter. I cut this away with my scissors and the rest slipped back with the ligature attached. Gave enemata of creolin solution twice a day, tonics internally. Two days later upon introduction of hand found ligature gone and all healed nicely. But the animal was losing his appetite. After a week anorexia was complete, and two weeks from time of operation he died. Whether it was due to old age, or the shock, I never could determine.



## A HORSE THAT WAS HOMESICK.

By F. A. ZUCKER, D.V.S., Elizabeth, N. J.

I was called to see a horse which Mr. W. had traded several days previous, and new owner said would not eat. Examined teeth and found same rather sharp, and so floated same. This did not tend to produce an appetite, so started in on tonics, until this source was entirely exhausted. Then going back to that, which always tends to some enlightenment in making a diagnosis, "history," I found that the horse was gotten from a stable where he had been twelve years, and fed from the same manger and by the same man the entire time. Owner also said the horse refused the food from the first day he got him. Made up my mind that the horse might be homesick, so drove him down to his former stable, and, to the surprise of all, he pitched in like a starved animal, for he had not eaten as much as a blade of grass in two weeks. Took him home and he has not refused a meal up to this time.

## THE COLORADO VETERINARY BILL.

The following bill is to be introduced in the Colorado Legislature during the coming session, and Secretary D. P. Frame writes the REVIEW that as it provides for the registration of all non-graduates within a certain period the veterinarians do not anticipate much opposition from that class:

## A BILL FOR AN ACT

TO REGULATE THE PRACTICE OF VETERINARY SURGERY, MEDICINE AND DENTISTRY IN THE STATE OF COLORADO.

*Be it enacted by the General Assembly of the State of Colorado.*

Section 1. A board is hereby established to be known as the State Board of Veterinary Examiners; said board shall be composed of three practicing veterinary surgeons, who are graduates of some recognized but different colleges of veterinary surgery and medicine, which board shall be appointed by the Governor within thirty days after this act becomes a law. Said board shall be appointed, one for two years, one for four years, and one for six years. Thereafter the Governor shall appoint biennially one member of said board possessing the qualifications before stated. In the event of resignation, death or removal of any member or all the members of said board, the Governor shall appoint their successors within thirty days.

Section 2. The Board of Veterinary Examiners shall elect from its members a president, a secretary, and a treasurer, and may a lopt such rules as they may deem proper for the performance of their duties, and to carry into effect the provisions of this act. They may also adopt a seal, which shall be affixed to all certificates issued by them, and the president and secretary shall sign all such certificates, but that no member of the Board of Veterinary Examiners shall require or accept any fee for services rendered in his capacity as such member of the Board of Veterinary Examiners, except their actual traveling and necessary expenses.

Section 3. It shall hereafter be unlawful for any person to practice veterinary surgery, medicine, or dentistry or any branch thereof in the State of Colorado without having pre-



viously obtained a certificate from the Board of Veterinary Examiners, or having registered as hereinafter provided.

Section 4. Applicants for certificates to practice veterinary surgery, medicine, or dentistry or any branch thereof, in the State of Colorado shall file their application with the Secretary of the Board of Examiners. If the applicant be a graduate of a recognized college of veterinary surgery and medicine, he shall present his diploma to the board or give satisfactory evidence of his being a graduate of a recognized college of veterinary surgery and medicine. The Board of Examiners shall examine all diplomas or evidences of such as to their genuineness.

Section 5. But it is further expressly provided that any person who shall have gained his livelihood solely from the practice of veterinary surgery and medicine as a profession in this State for the past five years immediately preceding the passage and approval of this act, shall be permitted to continue the practice of said veterinary surgery and medicine, if he shall within ninety days after the passage and approval of this act, register his name and address with said Board of Veterinary Examiners, and give satisfactory proof to said Board of Examiners that he has practiced in the State of Colorado for five years and is qualified to register under the provisions of this act.

Section 6. All persons commencing the practice of veterinary surgery, medicine or dentistry or any branch thereof in the State of Colorado after the passage and approval of this act, shall be graduates of a legally authorized and recognized veterinary school, college or university, and shall comply with the provisions of this act.

Section 7. Upon the approval of diploma or satisfactory evidence that applicant is entitled to register under the provisions of this act, said Board of Veterinary Examiners shall issue to such applicant a certificate to practice veterinary surgery, medicine or dentistry or any branch thereof in this State, and said certificate shall be conclusive as to the rights of the lawful holder thereof, to practice veterinary surgery, medicine or dentistry in the State of Colorado, provided that said board shall have power to reject any applicant for registration who is not fully qualified under the provisions of this act.

Section 8. There shall be paid to the Treasurer of said Board of Examiners, in advance, a fee of five dollars for each certificate issued to graduates of veterinary colleges, and a fee of ten dollars by all applicants for registration under section 5 of this act; and in case of failure of approval said fee shall be forfeited to the Board of Veterinary Examiners.

Section 9. It shall be the duty of said Board of Examiners to keep a register of all practitioners qualified under the provisions of this act, and to register the name, age, and time spent in the study and practice of veterinary surgery, medicine or dentistry, and if a graduate, the name and location of the school or college granting his diploma. Such record shall be *prima facie* evidence of all matters therein recorded, and shall be open to public inspection at all times, within reasonable hours, at the office of the secretary of the board. Such register shall be turned over to each succeeding Board of Examiners.

Section 10. The president of said board shall have the power to administer oath, and said board the authority to take testimony in all matters relating to its duties.

Section 11. Every person holding a certificate under the Board of Veterinary Examiners, shall have the same recorded in the office of the clerk of the county wherein he resides.

Section 12. Any person practicing veterinary surgery, medicine or dentistry or any branch thereof in the State of Colorado without complying with the provisions of this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be punished by a fine of not less than \$50 nor more than \$300, or by imprisonment in the county jail for not less than ten days nor more than sixty days, or by both fine and imprisonment for each and every offense, and all fines collected in accordance herewith shall be paid to the Treasurer of said Board of Veterinary Examiners.

Section 13. Any person shall be regarded as practicing veterinary surgery, medicine or dentistry or any branch thereof, within the meaning of this act, who shall publicly profess to be a veterinary surgeon or prescribe for sick and injured animals, and accept fee for such services, or attach to his name the title "V.S." or "Veterinary Surgeon," or any veterinary title in a medical sense.

But nothing in this act shall be construed to prohibit gratuitous services in a case of emergency.

Section 14. All moneys received by the Treasurer of said Board of Examiners shall be paid by him to the State Treasurer, and all expenses of said board shall be paid out of this fund, upon warrants drawn by the State Auditor on the State Treasurer, and signed by the President and Secretary of the Board of Examiners, and no other money shall be paid out of the State Treasury for the use and purpose of this act, provided that any excess in this fund above the expenses of said Board of Examiners shall stand to the credit of said Board of Examiners.

Section 15. The said board shall meet as a Board of Examiners in the city of Denver on the second Monday in January and July of each and every year, and at such other times and places as they may find necessary for the performance of their duties.

## EXTRACTS FROM EXCHANGES.

### GERMAN REVIEW.

By W. V. BIESER, D.V.S., New York City.

PANCREATIC DEGENERATION IN A HORSE.—A four-year-old stallion in spite of a good appetite kept emaciating more and more since March. Later it was noticed that drops of blood issued from under the periople at the crown of the hoof and the "chestnuts" appeared to be pushed off. By June 19th an extensive exudate of bloody serum showed itself at the junction of the hoof with the matrix in all four feet. The hoof was separated from its matrix in parts by the pressure of pus. A similar pathological process appeared in the chestnuts. The animal was markedly lame, had a pulse of 42 and a temperature of 38.8° C. The further course of the disease resembled purpura hæmorrhagica, the same swelling of limbs, abdomen, and sheath; the nostrils were excoriated and the eyelids swollen. The mallein test gave a negative result. On Dec. 12, 1895, an examination at the Royal Vet. Hospital, gave the following congerie of symptoms: Temp. 39° C.; pulse 48; respiration 9. The animal was markedly emaciated, the hind legs were swollen, there were many excoriations upon the hind legs, many sores over the surface of the body, the lips were œdematous, the eyelids swollen, a thick mucoid discharge issued from the eyes, a thin serous discharge from the nostrils, there was no glandular swelling; the horse was very lame, one knee was swollen and thickened; there were excoriations upon the coronet and glomes of the frog; upon one hoof the frog lay free; there was no abnormal odor. On Dec. 15th, tuberculin was injected with no reaction. The animal became worse rapidly and death ensued upon Dec. 24, 1895. Autopsy showed a remarkable change in the pan-

creas, which was enormously enlarged and weighed 16 lbs. ; the excretory ducts were markedly dilated, so much so that two fingers could easily be inserted into Wirsung's duct ; the ducts were filled with clear tenacious masses of mucous resembling albumen. The orifices of the two chief ducts of the pancreas were patent and dilated. The glandular tissue was greyish-yellow and cirrhotic. Upon section of pieces of the glandular tissue hardened in alcohol, microscopical examination showed an excessive growth of new connective tissue so great as to press the glandular substance closely together and in some places causing its disappearance. Here and there small non-cirrhotic areas appeared. The acini in these non-cirrhotic areas were markedly dilated and their epithelium showed mucoid degeneration.—(*Berl. Thierärzt. Woch.*)

**TUBERCULIN AS A MEANS OF DIAGNOSIS IN SUSPECTED TUBERCULOSIS IN CATTLE.**—Recognizing the difficulties that may confront the practitioner in the diagnosis of suspected tuberculosis, and influenced by the observations made in this particular sphere by Bang, Hutyra, Halm and Nocard at the 6th International Vet. Congress at Berne, the author was led to use tuberculin as a means of diagnosis of doubtful cases of tuberculosis. The tuberculin was obtained from the Pasteur-Chamberland Institute of Budapest. Of fifteen oxen inoculated, 10 gave the characteristic rise in temperature of from  $1.6^{\circ}$  C. to  $2.6^{\circ}$  C. Their general condition remained about the same. At the site of injection, only a slight practically painless swelling showed itself. These ten suspects were thereupon isolated and two of them that had shown a rise in temperature of  $2.4^{\circ}$  C. were killed. The autopsy showed tuberculosis of the bronchial glands. These glands were of the size of a child's fist, and contained miliary tubercles (varying from the size of a hemp seed to that of a lentil) in a state of cheesy degeneration. One of these cows also showed two small tubercular nodules of the same character in the lungs. The other organs were normal.—(*Berl. Thierärzt. Woch.*)

**PELLOTIN, A NEW HYPNOTIC.**—Lewin extracted many years ago the active principle anhalonin from the *Anhalonia Lewinii*, which resembles strychnine in its action upon animals. Hefter then extracted pelletin from another species of anhalonia, which in the form of the muriate of pelletin causes languor and then sleep in adults in doses of 0.04 g ; slowing of the pulse is a concomitant effect. Jolly has noticed no other undesirable effects. It can be given inwardly as well as subcutaneously, 0.04 g. pel-

lotin equals in potency about 1.0 g. of trional or 1.5 g. chloralhydrate. In one case of delirium tremens it was very successful, but on the contrary it has failed in other cases of sickness when a hypnotic effect was desirable.—(*Berl. Thierärzt. Woch.*)

LOCAL ANÆSTHESIA WITH HEATED COCAINE SOLUTION.—C. (Genoa) recommends in operations lasting a long time local anæsthesia by means of injection of heated cocaine solution heated to a temperature of from 50° C. to 55° C. This procedure offers the following advantages: 1. Weaker solutions than ordinary are needed when thus heated. 2. Local anæsthesia sets in almost immediately. 3. Heated solutions cause the subcutaneous connective tissue to become anæsthetic in wider zones. 4. Toxic effects are lessened, as one can get along with weaker solutions of cocaine when thus heated. Costa as a rule uses a solution of only one to two hundred or one to two hundred and fifty. Of prime importance is the knowledge of the fact that the solution must neither be *cooked* nor allowed to cool too quickly.—(*Berl. Thierärzt. Woch.*)

RESECTION OF A STRONGLY CICATRIZED TENDO-ACHILLES.—A hunting dog, whose right tendo-achilles had been severed by an axe thrown at him, and who gnawed off the bandage placed over the wound, was left by his owner to get over his injury as best he could, with the result that the tendo-achilles (owing to the excessive motion) after scarring became so lengthened as to cause great deformity. R. cut sidewise into the lengthened scar tissue between the ends of the severed tendon and resected a piece 3 cm. long, sewed the unscarred ends of the severed tendon together with catgut, then extended the foot into its proper position and immobilized it in that position in a plaster of Paris splint, with highly satisfactory results.—(*Berl. Thierärzt. Woch.*)

### ITALIAN REVIEW.

A CASE OF TUBERCULOUS BASILAR LEPTOMENINGITIS is published in the *Clinica Veterinaria*, by Dr. Gerosa Guiseppa, who observed it in a bovine which presented only for principal symptoms the manner with which it carried its head on one side and low to the ground, and which at the post-mortem presented the meninges, principally at the base of the brain, covered with numerous tuberculous deposits. The singular apparent healthy condition of the patient, with the exception of its peculiar mode

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of carrying the head, had misled the author, who suspected the case to be one of *cœnurus cerebialis*.

SIX REPEATED ATTACKS OF PERIODIC OPHTHALMIA IN 161 DAYS—PRESERVATION OF THE EYE.—In *Clinica Veterinaria* A. Trinchera records this case, which is interesting from the fact that he succeeded in saving the eye, notwithstanding the frequency of the attacks. The treatment was as follows: the three first attacks were treated with compresses of camomile flower infusion, with boric acid at 3 per cent. The last attack received, besides these, application of a collyrium of tropine at 1 per cent. What will be the end?—(*Clinica Veterinaria*.)

SPASM OF THE DIAPHRAGM [*By Mr. Gerosa*].—This is a simple case of the affection commonly called "thumps," and which readily subsided, notwithstanding the severity of the symptoms and of the attack, to one tracheal injection of 15 centigrammes of muriate of morphia and a mustard poultice near the stomach attachment of the diaphragm.—(*Clinica Veterinaria*.)

A PECULIARITY OF THE TECHNIC OF LOCAL ANÆSTHESIA BY COCAINE [*By Mr. Tito Costa*].—According to the author, local anæsthesia by cocaine, as generally applied, has two weak points: 1st. A large dose of the alkaloid has to be used when the operation is to take place on extensive surface, hence danger of intoxication. 2d. It is necessary to allow a certain lapse of time between the moment of the injection of cocaine and that of the operation. As a remedy to these objections Mr. Costa uses solution of cocaine at 50 or even 55 degrees, and he claims from this, the following advantages: 1st. The solution, at 5 or 4 per cent., has high anæsthetic power. 2d. The local anæsthesia shows itself immediately after the injection. 3d. With equal quantity of cocained solutions, the insensibilized zone is greater in using warm instead of cold solution. 4th. In using a weaker dose, which though it produces anæsthesia upon a wider surface, the dangers of intoxication are diminished.—(*Monog.*)

RUPTURE AND PROLAPSUS OF THE LEFT EYE WITH COM-MINUTIVE FRACTURE OF BONES OF THE FACE AND DEEP WOUND OF LOWER JAW.—To the clinics of the Milan school numerous cases are daily brought, and Prof. Lonzillotti-Buon-santi records many of them. This is one: In double harness to a wagon, this is run into by a steam tramway, one of the team is killed, the other badly hurt, viz., the left ocular globe is partially torn and hangs out of the orbit, the skin of this side of the face is lacerated, there is a fracture of the orbital process, the lachrymal, zygomatic, and superior part of the upper max-

illary bones. *Treatment*: Amputation of the eye, removal of the loose lacerated skin, extraction of the loose pieces of fractured bones, continued antiseptic irrigation (sublimite solution), dressing with iodoformed wadding and a contentive bandage. *Result*: Formation of healthy granulations after ten days at the bottom of the traumatism; seventeen days later discharged in convalescence, requiring only dusting of phenicated charcoal on the surface of the wound.—(*Clinica Veterinaria*.)

## EXPERIMENTAL PATHOLOGY.

SEROTHERAPY OF TUBERCULOSIS [*By A. W. Tourkine*].—From experiments made on 46 animals, of which 6 were witnesses, the following conclusions of the author are made: 1. The horse is well disposed to furnish antituberculous serum. 2. In injecting horses with cultures of the bacillus of human tuberculosis in increasing virulency, a serum of some antituberculous activity is obtained. 3. The curative strength of the serum seems to increase with the number of injections of cultures. 4. Injection of equine antituberculous serum is not painful, and is not accompanied, in guinea-pig or cat, by local reaction. 5. The good action of the antituberculous serum is manifested by the diminution of the fever of the diseased animals after repeated injections. 6. Animals infected artificially, then treated with the serum of horse immunized against tuberculosis, obtain a longer prolongation of life than the witnesses. 7. In those same animals, the evolution of tuberculosis has a stage of arrest, but they, nevertheless, die by fatty degeneration of the organs. 8. Consequently, the treatment by serum of an immunized horse only postpones the time of death, in tuberculous guinea-pig and cat. 9. The author has not succeeded in obtaining, by injections of tuberculosis in the blood of dogs, a serum able to arrest the development of the disease in infected animals. 10. The action of the serum of an immunized horse is the same for tuberculous cats as well as for guinea-pigs. 11. The application of serotherapy to the treatment of human tuberculosis is premature.—(*Rev. Sc. Medic.*)

EXPERIMENTAL RESEARCHES ON THE AVIARY ORIGIN OF HUMAN DIPHTHERIA [*By L. Gallez*].—There exists in fowls an affection called contagious catarrh, characterized essentially by a glairy secretion of the mucous membrane of the mouth, nasal cavities and eyes, by a rapid emaciation, paralysis of the

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legs; the prognosis is very serious and contagiousity excessive. This is the affection which may become the origin of epidemics of human diphtheria. Its first cause is a bacillus which differs from that of Löffler by less virulency. Inoculated to guinea-pigs, when its virulency has been increased they are seen to die with the identical phenomena due to the bacillus of Löffler. Contagious catarrh of fowls seems to differ by its symptoms and etiology from the disease called aviary diphtheria. Between this last and human diphtheria there is only similarity of names. Antidiphtheria serum brings on the disappearance of the morbid secretions of fowls suffering with contagious catarrh, arrests their emaciation and, if it does not cure them entirely, it prevents the development of the disease as long as it is used.—(*Acad. Med. Belg.*)

IMMUNITY GIVEN TO RABBIT BY THE INJECTION OF ANTISTREPTOCOCCIC SERUM OF HORSES AND A NEW MODE OF USING IT. [*By M. J. Denys and L. Marchand*].—The serum of the horse immunized against streptococcus does not possess bactericidal properties proper, against this microbe; it does not destroy it directly, but it contains a substance which renders the phagocytic power of the leucocytes very great. If the antistreptococcic serum is submitted to too strong dilution, if the leucocytes are few and the micro-organisms numerous, the effect is reduced and is not lasting. In other words, by the addition of a little serum of an immunized horse, the serum of rabbit becomes, to the point of view of phagocytosis equal to the serum of the non-vaccinated rabbit. When erysipelas occurs in a rabbit it may be cut short by small injections of antistreptococcic serum round the centre. If, instead of making them in proximity, they are in equal doses on further point, the disease will be but little influenced. A region, in which a small dose of antistreptococcic serum is inoculated preventively, becomes refractory to a larger dose of streptococci.—(*Acad. Med. Belg.*)

TICKS AND TEXAS FEVER.—Mr. W. D. Clayton, of College Station, Tex., has just returned from Columbia, Mo., where he spent the past summer in the interest of a Texas cattle fever experiment conducted jointly by the Texas and Missouri Experiment Stations. Eight native cattle dipped and shipped from College Station were pastured at the Missouri Station for seventy-four days and no traces of fever appeared. The experiment is considered successful as indicating that ticks on Texas cattle carry the disease.

## REVIEW OF BOVINE PATHOLOGY.

CONGENITAL ATRESIA OF THE UTERINE NECK—HYSTEROTOMY—EMBRYOTOMY—RECOVERY.—In the *Progrès Vétérinaire* Mr. Marechal reports the case of a primipara to which he was called in consultation to deliver her of her first calf. At the vaginal examination he found that he could not dilate the os, but had to make his way through by dividing with the bistoury caché three successive contractions of the uterine neck, which prevented its dilatation and the introduction of the hand into the uterus. When he reached the cavity the foetus proved to be so large that the two front legs had to be amputated before it could be extracted. The division of the strictures of the neck was entirely bloodless and the animal suffered no pain from it, as she kept up ruminating during the whole operation. She recovered without any bad manifestations.

PECULIAR CEREBRAL LESIONS [*By J. Guittard*].—This unusual case is rendered very interesting by the post-mortem examination, which explains the symptoms exhibited during life. A two-and-a-half months' old calf, in good condition, has for two or three days a dull appearance. He keeps his head up, extended, he is entirely blind in the right eye, sees some with the left, he still sucks but slowly. A diagnosis of disease of the cerebellum with lesion of the optic nerve is made. At the examination of the head the author found an abscess of the cranial cavity, as large as a small nut, and containing encysted pus, pressing on the optic nerve (explanation of the loss of sight); then again a separation at the occipito-sphenoidal symphysis, which prevented the action of the flexor muscles of the head (explaining the symptoms of elevation observed during life). All these lesions being due, according to the author, to rough handling of the calf while he was taken to and fro from his stable.

THE SPOILS SYSTEM ONCE MORE.—Governor-elect Tanner, of Illinois, who is generally regarded as a machine politician, must find himself in a dilemma as regards choice of the State Veterinarian, for there are not less than sixteen rivals who battle for the position. Among the most prominent men are Dr. Trumbower, the present incumbent, and Drs. Casswell, McMahon, McEvers, Tyffany and Wilson. Almost every applicant claims to have been promised the position, and the outcome is watched with curiosity by the veterinarians of the State.



## HORSES IN THE UNITED STATES.

The Department of Agriculture has issued a bulletin showing the number of horses in the United States. The three leading horse-producing States are given in the following table:

YEAR.	Iowa.	Illinois.	Texas.
1880.....	778,400	1,078,000	963,900
1881.....	809,536	1,067,220	1,002,456
1882.....	816,092	1,012,851	338,343
1883.....	856,897	1,017,915	880,260
1884.....	891,173	1,028,094	889,063
1885.....	917,808	1,038,375	933,516
1886.....	945,445	1,048,759	998,862
1887.....	973,808	1,059,247	1,038,816
1888.....	1,003,022	1,069,839	1,225,803
1889.....	1,053,173	1,091,236	1,323,867
1890.....	1,095,300	1,123,973	1,350,344
1891.....	1,095,300	1,123,973	1,512,385
1892.....	1,314,360	1,337,528	1,209,908
1893.....	2,353,791	1,377,654	1,246,246
1894.....	1,367,329	1,308,771	1,183,895
1895.....	1,298,963	1,295,683	1,195,734
1896.....	1,182,056	1,179,072	1,183,777

The department groups the States into five divisions. Under each division is shown the number of horses in that division in 1880, and for every year down to 1896. In 1880 the United States had 11,201,800. January 1, 1896, the number was 15,124,057. The highest figure was reached in 1893, being 16,206,802. By reference to the table it will be observed that the three States named had four million horses, nearly one-fourth of the entire number in the United States at that time.

The gain in the United States from 1880 to 1896, a term of sixteen years, was 5,005,002. The decrease from 1893 to 1896, a term of three years, was 1,082,746. This is a decrease in the United States of over one-quarter of a million per year for the past three years. The total decrease in the whole United States during 1895 was 779,261, over three-quarters of a million.

None of the other States, besides Iowa, Illinois and Texas, have ever reached one million, except Kansas in 1893 and Missouri in 1894, both of these dropping back over one hundred thousand the next succeeding years. Ohio has between seven and eight hundred thousand, Indiana the same number. Michigan and Wisconsin rank next. East of Ohio the numbers do not vary much in any of the States, which shows that the surplus horses are practically all raised in the West. A few Southern States have made slight gains, but the increase is accounted for upon the grounds of recent agricultural developments in these

States. New York, a noted horse State, had 993,900 head in 1880, and has practically decreased every year since, except 1894, and now only has 654,045. Pennsylvania, the other largest Eastern State, had 602,200 in 1880, and January 1, 1896, had 607,516. She increased to 659,484 in 1894, but dropped back again to normal conditions in 1895.

## THE ORIGINAL HORSE.

A small party of Frenchmen of science, which included Prince Henri of Orleans and M. Bonvalot, has lately returned from a journey of exploration through the vast and almost uninhabited regions of Central Asia. The expedition brought back several stuffed specimens of rare animals found in that part of the world, and among them a specimen of the hemione, or Klang horse. This animal probably approaches as near to the primitive horse as any now found in a wild state.

The home of the Klang horse is the high plateau of Chinese Turkestan, between Lake Lob Nor and the mountainous region of Thibet. This plateau is covered with a growth of short grass, on which the wild horses graze. The climate is very cold, the mercury in winter sinking to 40 degrees below zero, Fahrenheit.

The Klang horse is a shabby, unkempt-looking animal, having bodily somewhat the aspect of a donkey, except as to the tail and ears. It is, however, a genuine horse, having rather delicate legs and feet, and ears by no means resembling those of a donkey or mule.

The color of the head and of the upper part and sides of the body is a reddish-tan, shading to a bay, and though downward it contrasts strikingly with the pure white of the animal's belly and the inner side of the fore legs.

Along the spine runs a well-defined stripe of thick, blackish brown hair, extending to the root of the tail. The hair is long and shaggy, and adapts the horse to living in a cold country.

The Klangs, like all the other wild horses, live in bands or herds of one hundred to two hundred individuals, each presided over by an old male, says the *Youth's Companion*. This leader gives the signal when any danger approaches.

The Klangs are preyed upon frequently by wolves; but their most terrible and dreaded enemy is the ounce, or Turkestan panther, several specimens of which were shot by Prince Henri.

## THE TUBERCULOSIS CAMPAIGN IN VERMONT.

The report of the Vermont State Board of Agriculture, acting as cattle commissioners, has just been published, in a very clear and admirable summary of 44 pages. It details the work under the new law of 1894 up to July 1, 1896. The first step was to prohibit production of cattle unless tested, this being done in the spring of 1895. Then C. M. Winslow was placed in charge of inspection in the first congress district and V. I. Spear in the second. The work done has been in all cases at the request of the owners of cattle, and so many requests have been made that it has been impossible to comply with them all. The work was first done in suspected herds and then extended to other herds as far as time permitted. It appears that "the disease is not evenly or generally distributed in the herds throughout the State, some localities being almost entirely free from it." Its introduction is not placed further back than 20 years, when cattle imported from Europe were brought into the State, and most of its progress has been in the past ten years. A strong word is spoken for sanitation.

But few tests have been made since July 1. In the 16 months prior to that date, nearly 15,000 tests by tuberculin were made. "In the 441 cases condemned in the first district, 439 were found to be diseased and in two we were unable to find disease; in the second district, of the 473 cases condemned and killed, disease was found in 471, only in two cases we failed to find tuberculosis and paid the owners full compensation." A number of cases are reported in which the test failed to reveal the disease when present. It is intended to make a second test within a year or 18 months of the first, of all herds where disease is found. Such tests made this spring have sometimes found one or two cases or none.

The present indemnity law has operated so satisfactorily as a whole that the commission does not advise any change. It provides for appraisal of cattle killed by a person appointed by the board and another by the owner, and if these two cannot agree, they shall select a third, "who, together with them, shall appraise the animal just before killing and on a basis of health, the limit of value being \$40." If upon post-mortem the animal proves to be tuberculous, the owner receives one-half appraised value, otherwise full value.

The expenses of the commission have been less than \$13,000 for stock condemned. The two active commissioners have

drawn in salaries an average of less than \$700 apiece. All the traveling and other incidental expenses of the board in this work were only \$1350, and the veterinarians employed were paid a total of \$4000.

	First district.	Second district.
No. of cattle tested for farmers, . . . . .	4,804	6,461
“ “ “ “ drovers, . . . . .	2,155	735
Total cattle tested, . . . . .	6, 59	7,196
Condemned farmers' cattle, . . . . .	441	462
“ “ drovers' cattle, . . . . .	10	11
“ “ total, . . . . .	451	473
Percentage condemned, farmers, . . . . .	9.18	7.0
“ “ drovers, . . . . .	0.46	1.5
Paid for cattle killed, farmers, . . . . .	\$6,707	\$6,542
“ “ “ “ drovers, . . . . .	\$185	\$204
“ “ “ “ total, . . . . .	\$6,892	\$6,746
Av. paid per head, farmers, . . . . .	\$15.20	\$14.16
“ “ “ “ drovers, . . . . .	\$18.50	\$18.50
Grand total, No. of cattle tested, . . . . .		14,155
“ “ “ killed, . . . . .		924
“ “ per cent. found diseased, . . . . .		4.53

## SOCIETY MEETINGS.

### VETERINARY MEDICAL ASSOCIATION OF NEW YORK COUNTY.

The regular monthly meeting of this association was called to order at 8.45 P. M., Dec. 2d, at its rooms in the Academy of Medicine, by the President, Dr. Huidekoper.

On roll-call the following members responded: Drs. Amling, C. C. Catanach, J. J. Cattanch, J. S. Cattanch, J. S. Cattanch, Jr., Delaney, Ellis, Farley, Giffen, Gill, Huidekoper, Hanson, Loomes, Machan, Mackeller, Neher, O'Shea, and Ryder (18).

The minutes of the previous meeting were next read and approved.

*Report of Board of Censors.*—Dr. Gill, Chairman, reported favorably on the names of Drs. Bell and Winslow, who had made application for membership, and in reference to the application of Dr. Miller the board referred it to the association, stating that they considered Dr. Miller a very worthy and desirable applicant, but that he was not registered in the county. Moved and seconded that the report be accepted. Carried. After some discussion, it was moved and seconded that Dr. Miller be made a member of the association. Carried. Drs. Bell, Winslow, and Miller were then introduced to the association as members by the President.



*Report of the Judiciary Committee.*—Dr. O'Shea, Chairman, reported that the committee had arrested N. S. Bryant for practicing illegally ; that as he pleaded guilty, they asked for the clemency of the court, and he was allowed to pass out of the court room under suspended sentence. Moved and seconded that the report be accepted. Carried.

*The Veterinary Blue Book of New York.*—Next in order was a report by President Huidekoper on the work being done by him in obtaining a correct list of registered practitioners in New York, pursuant to the preparation of "the Veterinary Blue Book of New York," which he proposed to contain the following lists of references : The New York State law regulating veterinary practice ; a register of licensed veterinarians in New York, Kings, Queens, and Westchester Counties ; the veterinarians officially employed in New York County and vicinity (by the Treasury Department, U. S. Government, by the Bureau of Animal Industry, U. S. Department of Agriculture, by the New York city departments, by the Society for the Prevention of Cruelty to Animals, etc.) ; the licensed veterinarians in New York State who are members of the New York State Veterinary Medical Society ; the officers of the United States Veterinary Medical Association, New York State Veterinary Medical Society (incorporated) ; Veterinary Medical Association of New York County (incorporated), the officers and faculties of the veterinary colleges (New York College of Veterinary Surgeons, the American Veterinary College, the New York State Veterinary College at Cornell University) ; a digest of the United States, New York State, and New York City laws regulating glanders and contagious diseases in animals, inspection of meat and milk, removal of dead animals, licensing of dogs, auction sale of horses, cabs and cab service in New York City, importation and exportation of animals (interstate, to Canada, and to England, France and other foreign countries) ; regulations concerning transportation of animals by steamship, and by express companies from New York City ; insurance of live stock in transport and from fire ; information concerning and list of officers of the Jockey Club, the Coney Island Jockey Club, the Brooklyn Jockey Club, the Westchester Racing Association, the National Hunt Association, the polo clubs, the National Trotting Association, the Master Horseshoers Association, the Bookmakers Association, the American Kennel Club, the Westminster Kennel Club, the Metropolitan Kennel Club, the National Horse Show Association, the National Live Stock Association,

the American Cat Club, etc. It is also proposed to insert some of the following advertisements: Veterinary colleges, veterinary hospitals and infirmaries, auction marts for sale of horses, dealers in horses, dealers in harness, dealers in wagons, dealers in stable supplies, custom-house brokers and commission brokers who attend to receiving and shipping horses, ocean steamship lines for transportation of horses and cattle, insurance (live stock in transport by railroad and steamship), insurance (live stock from fire), veterinary instrument makers and supplies, veterinary and sporting book dealers, veterinary drugs, dealers in mallein, tuberculin, antitetanin, etc. Moved and seconded that the proposition be accepted and the work placed in the hands of a committee of three for publication. Carried.

*Election of Officers.*—Nominations for President: Dr. Huidekoper was nominated and the nominations were closed. Nominations for Vice-President: Drs. Robertson and Ryder were nominated, when nominations were closed. Nominations for Secretary: Dr. Ellis was nominated, and nominations were closed. Nominations for Treasurer: Dr. C. C. Cattnach was nominated and nominations closed. The by-laws were suspended where there was but one nomination for each office and they were elected by acclamation. The following officers were declared elected: President, Dr. Huidekoper; Secretary, Dr. Ellis; Treasurer, Dr. C. C. Cattnach. Then the balloting took place for Vice-President, with the following result: Dr. Robertson received thirteen votes and Dr. Ryder five. Moved by Dr. Ryder and seconded that the election of Dr. Robertson be made unanimous. Carried.

The next order of business was the reading by the Secretary of a list of names of members eighteen months in arrears, in accordance with a motion passed at the November meeting. Moved and seconded that the Secretary be authorized to notify said gentlemen that final action had been taken on their names, except Dr. E. A. Parsons, who was vouched for by Dr. Gill, with the request that his name be excepted from the list for final notice until after the next meeting. Carried.

A communication from H. Clay Glover was read by the Secretary. Moved and seconded that it be referred to the Board of Censors for consideration, to be reported on at the next meeting. Carried.

Moved and seconded that the meeting adjourn. Carried.

ROBERT W. ELLIS, D.V.S.,

*Secretary.*

## ILLINOIS STATE VETERINARY MEDICAL ASSOCIATION.

The thirteenth annual meeting of this association, held at the Sherman House, Chicago, Ill., Nov. 17th and 18th, was called to order by President M. R. Trumbower, at 3 P. M. On roll-call the following members responded: Drs. A. G. Alverson, Albert Babb, A. H. Baker, S. S. Baker, F. L. Brown, John Casewell, L. Campbell, E. S. Fry, Robert Gysel, T. J. Gunning, W. C. Hanawalt, H. G. Hoover, Joseph Hughes, C. W. Johnson, J. H. Judson, O. J. Lanigan, W. J. Martin, C. A. Pierce, E. L. Quitman, J. F. Ryan, C. E. Sayre, J. L. Siegrosser, Olof Schwarzkopf, J. L. Tyler, M. R. Trumbower, W. F. Weese, M. Wilson and R. G. Walker.

The President then made his annual address, which was pregnant with facts regarding the present status of the profession in this State.

Dr. E. S. Fry then read his paper, "Inversion of the Uterus,"\* which was liberally discussed; after which came the production of Dr. Chas. W. Johnson on "Parturient Apoplexy," which occasioned the usual protracted discussion of this perplexing disease.

On application the following gentlemen<sup>†</sup> were admitted to membership: Drs. J. F. Black, A. E. Flowers, James Henderson, L. A. Merillat, Geo. McEvers and James Robertson, all of Chicago, together with Drs. Harri H. Dell, Sullivan, Ill.; G. A. Lytle, Barrington, Ill.; G. G. Ratz, Red Bud, Ill., and W. H. Welch, Lexington, Ill.

At the evening session the society listened to the meritorious paper of Dr. E. L. Quitman on "Therapeutics."\* A spirited and lengthy discussion followed, and a vote of thanks was extended to the writer.

Society adjourned till to-morrow.

The society was called to order at 10 A. M., Nov. 18th, with the President in the chair.

Dr. W. C. Hanawalt read his essay on "Therapeutics of Salicylate of Sodium,"\* which was liberally discussed.

Next came Dr. W. J. Martin with his article on "Fistulous Withers,"\* which brought forth many practical suggestions.

Adjournment for dinner then followed.

Society returned to business at 3 P. M. and at once listened to Dr. W. F. Weese's paper, "Infectious Ophthalmia of Cattle."†

\* Will be printed in February REVIEW.

† Published elsewhere in this number.

Several members then related their experiences with this disorder.

Then came Dr. James Robertson's production, "The Relation of a Veterinarian to the Horse-Shoer." It was a sound practical article on a very important subject, and was duly appreciated.

A recess of fifteen minutes was then taken for a general talk on the matter of legislation, after which the Treasurer, Dr. R. G. Walker, made his report, showing a small balance to the credit of the association.

Election of officers was next in order, and the following were chosen: President, M. R. Trumbower, of Sterling, re-elected; Vice-President, A. G. Alverson, Bloomington; Secretary, Albert Babb, Springfield, re-elected; Treasurer, R. G. Walker, of Chicago, re-elected. The present Board of Censors was continued another year.

The President appointed the following Committee on Program: Drs. A. H. Baker, J. F. Pease, and J. L. Siegrosser.

On motion, the Chairman appointed Drs. S. S. Baker, M. Wilson, T. J. Gunning, J. L. Tyler and Albert Babb as a Committee on Legislation, with power to act. All were determined to work for a bill in the coming session of the legislature, and the society assessed each member \$10 to make up the requisite fund for expenses of the committee.

Dr. Drinkwater, of Iowa, was a welcome visitor; Col. Hamilton was also present, and gave us some timely suggestions in regard to legislation.

On motion the society adjourned to meet at the call of the President at Bloomington some time in February.

ALBERT BABB, A. B., M. V. C., *Sec'y.*

#### KEYSTONE VETERINARY MEDICAL ASSOCIATION.

What proved to be one of the most pleasant and instructive meetings ever held by the association was called to order by President John R. Hart, Tuesday evening, October 13th, with the following members of the profession present: Drs. Francis S. Allen, H. A. Christman, C. M. Cullen, Charles T. Goentner, John R. Hart, W. Horace Hoskins, Charles Lints, Thomas B. Raynor, and W. L. Rhoads.

After the reading and approval of the report of the September minutes, the Chairman of the Committee on Certificates reported the progress of a most diligent search for the original



minute-book of the association that they might have the correct date of its organization placed on the membership certificates.

Dr. H. J. McClellan having given up the profession of veterinary medicine, tendered his resignation to the association, which was read and referred to the Board of Trustees.

Dr. Hoskins then read an interesting paper entitled "Some Aspects of Association Works and Aims," in which he urged the necessity of a closer union of the profession at this time when we are so ill-prepared to stand alone as individuals; further than this, we need to foster a closer affiliation with our brother profession, that of human medicine. He spoke of the great danger to our own welfare and prosperity by the establishment in our midst of great marts of trade toward which every channel of trade seems to run. As a rule, their influences are not for the general good. He cited an instance where there had been concentrated under one roof the business of fifty or more individual houses, thus losing to the community the value of a number of good and efficient men. To the acute observer this means a loss to the manufacturer of drugs and chemicals, as well as the retailer and dispenser, also the carriage-builder, the harness-maker, the shoer, etc., *ad infinitum*. Undoubtedly the strength of our association circles first brought before the people the advantage of civil-service reform, and, after thoroughly enthusing them on the subject, has year by year gradually raised the standard of such examination till now, not the politician, but the proficient professional man is most sure of his position. Thus the association is an incentive to all to keep moving toward the top. The reading of this paper, which, by the way, was up to date, was listened to with great interest, and evidently thoroughly digested by each one fortunate enough to hear it.

The first of the half-hour talks arranged for this season's entertainment was by Dr. J. Cheston Morris, "On Some Statistics of Dairy-products and Thoughts Thereupon; Personal Experience in the Proper Preparation of Milk for Sale in the Markets and the Value of Separator-products of Milk." This, though looked forward to with great interest, was to all a most delightful surprise, as it was, without doubt, the most thoroughly comprehensive and instructive talk on this or kindred subjects ever given before the association. Dr. Morris spoke of the superiority of Devon cattle for the production of milk to be used in its natural state, as due to its relative proportions of butter-fat, casein, and sugar being the same, or nearly so, as those of human milk, as shown by the many thousands of analyses made

and published by the Aylesbury Dairy Company and the society of chemists in Great Britain; from these we may gather that Jerseys and Guernseys yield a milk relatively rich in fat, but poor in casein and sugar. Short-horns, Ayrshires, and Holsteins a more watery fluid, rich in casein, but relatively poor in butter-fat and sugar; while Devons give milk nearly as rich in fat as the Jersey, and in casein as the Ayrshires, and richer than either in sugar. While the fat in a finely-divided natural emulsion is most useful and necessary in cell-growth, we are apt to over-value it and disregard the active agency of milk sugar, which, by its splitting into lactic acid in the digestive processes, causes the chemical changes in the phosphates and albuminates on which tissue-building and nutrition so largely depend. Hence the superiority of Devon milk, as shown in practical results. Skimmed milk yields a hard curd, difficult of digestion. The curd of cow's milk being more dense than the light, flocculent curd of human milk, in artificial feeding we use sugar or starchy material to make the curd more porous or spongy. The milk of the buffalo, goat, and ass illustrates the same truth. Lehman says a cow properly fed should yield 1 per cent. of her weight. The statistics kept by Dr. Morris (and they are certainly most complete and exhaustive, each sheet showing name, herd-book number, when dropped, when she calved, sex, color, and any peculiarity of calf, what became of it, if kept or sent to the butcher, when she comes in profit, the number of pounds of milk given each night and morning, when she is served and when due, her price and any peculiarities of her conformation, etc.; these sheets, being carefully filed, give a complete life-history of each cow and her offspring) show that his cattle, which weigh from six to eight hundred pounds, have averaged him five-and-a-half times their weight, or about 3500 pounds of milk yearly (a most conservative estimate), on a feed of hay, corn-fodder cut green and mixed with hominy, bran, potatoes, and beets. He explained the method of the Devonshire people for raising cream and making butter, the sweet skimmed milk being fed to the calves. He has tried this process, but is now using a hand-separator, with which recently he obtained over four quarts of cream from twenty-eight quarts of milk (one pound of butter from seven quarts of milk), which he can use more profitably for calves than for pigs. After the talk Dr. Morris expressed a willingness to answer any questions put to him. He was kept busy for the next half-hour, being questioned relative to almost every stage and era of dairy-breeding

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and farming. Yet in every instance he was fully prepared, showing his great interest in and love for this work. In answer to some of these he described Guenon's system for selecting milkers by their markings—known as the scutcheon. He is in favor of inspection not only of the cattle, but of attendants and those who handle milk, claiming a tuberculous milkman may do more harm than a great number of tuberculous cattle. This examination should extend not only to the health of the cattle, but to their cleanliness and care of stables, milk-houses, etc. This examination should be made frequently and without warning. He felt the general average of health might be improved by proper food; also that the Danish method of separating tuberculous cows and using their milk after boiling to raise their own calves has been shown to be perfectly safe and successful, thus rendering wholesale slaughter unnecessary, and might be done without entailing a great loss. He figures it now costs four cents per quart to raise milk with hay at fifteen dollars per ton.

Dr. Rhoads now moved that in recognition of the great value of this talk to those present, and in consideration of the benefit his attendance and fellowship would be to us, that he be made an honorary member; this was seconded by Dr. Hoskins, and unanimously voted upon. The hour being late, election of officers was postponed till the November meeting.

W. L. RHOADS, D. V. S., *Secretary*.

#### IOWA STATE VETERINARY MEDICAL ASSOCIATION.

The ninth annual meeting of this flourishing association will be held on Wednesday and Thursday, Jan. 13th and 14th, 1897, at the Capitol Building, Des Moines, Iowa, and a most interesting programme awaits those who are fortunate enough to be able to attend. The efficient Secretary, Dr. J. E. Brown, Oskaloosa, has favored the REVIEW with the full programme, which includes the following interesting papers: "Serum-Therapy in Hog Cholera," Dr. A. T. Peters, Lincoln, Neb.; "Lymphoma," Dr. J. Miller, Ottumwa; "The Relation of Our Profession to Public Health," Dr. J. F. Kennedy, Des Moines; "Parasitic Diseases of Sheep," Dr. W. B. Niles, Ames; "Duties of the State Veterinary Surgeon," Dr. J. I. Gibson, Denison; "On the Contagion of Tuberculosis," Dr. H. Shipley, Sheldon; "Fungoid Growths," Dr. W. A. Heck, Keokuk; "Azoturia," Dr. J. A. Replogle, Centreville; "Thermo-Cautery in Veterinary Practice," Dr. P. O. Koto, Forest City; "Barium Chloride, its Use in the Treatment of Colic," Dr. J. E. Brown, Oskaloosa,

The meeting will be in conjunction with the State Agricultural Society, and reduced fares can therefore be obtained.

#### NEW HAMPSHIRE VETERINARY MEDICAL ASSOCIATION.

The thirteenth meeting of the New Hampshire Veterinary Medical Association was held at the Eagle Hotel, Concord, on Tuesday, Dec. 8th, at 11.30 A. M., with Dr. Lilico in the chair. Drs. Lilico, Tuttle, Hart, Abbott, Russell, Macguire, and Pope responded to roll-call.

Dr. Pope read a report on the proceedings at the United States Veterinary Medical Association convention at Buffalo in September.

Dr. Lilico, chairman of the Legislative Committee, presented a proposed bill from the committee to go before the coming legislature. The bill was discussed by sections and a few changes suggested. Dr. Lilico was then authorized to employ counsel and have the bill put into proper shape and the penalties attached. After its completion the Secretary was instructed to call a meeting to reconsider the changes made.

Dr. R. J. Macguire then read a most interesting paper on "Abortion," which was followed by discussion. Meeting adjourned until March.

L. POPE, JR., M.D.V, *Secretary*.

#### MISSOURI VALLEY VETERINARY ASSOCIATION.

The meeting of this association held in Kansas City, Dec. 9th, was well attended and the subjects presented were discussed with much enthusiasm. Only two papers were read, the remaining time being occupied in discussion of cases. The next meeting of this association will be held in Kansas City the second Wednesday in February.

#### HYDROZONE IN GASTRIC AND INTESTINAL DISORDERS.—

The use of hydrozone in these affections is highly recommended by Dr. John Aulde, of Philadelphia, in an article which he published some time ago in the *New York Medical Journal*. Knowing the antiseptic properties that this compound possesses and in the presence of the results obtained by the doctor in gastric and intestinal disorders, the question can certainly not be improper as to whether similar results could not be reached in veterinary practice—for any of our domestic animals suffering with gastritis in any of its forms, in diarrhoeic troubles such as those that accompany some of our microbic diseases. Hydrozone is certainly worth a trial at the hands of veterinarians.

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## UNITED STATES VETERINARY MEDICAL ASSOCIATION.

### NEW COMMITTEES APPOINTED.

BOSTON, MASS, Dec. 28, 1896.

*Editors American Veterinary Review:*

DEAR SIR:—The following is the list of Committees for 1896-97.

*Minor.*—W. Horace Hoskins, Chairman, 3452 Ludlow St., Philadelphia; Leonard Pearson, University of Pennsylvania, Philadelphia; D. E. Salmon, B. A. I., Washington; M. P. Hinkley, 359 Ellicott St., Buffalo; L. H. Howard, 67 W. Newton St., Boston; W. L. Williams, Ithaca, N. Y.; C. A. Cary, Auburn, Ala.

*Army Legislation.*—J. P. Turner, Chairman, Fort Meyer, Va.; John R. Hart, 2577 Amber St., Philadelphia; Austin Peters, Jamaica Plain, Boston, Mass.

*Publication.*—W. L. Williams, Chairman, Ithaca, N. Y.; M. P. Hinkley, Buffalo; Sisco Stewart, 7½ So. James St., Kansas City, Kan.

*Resolutions.*—Leonard Pearson, Chairman, Philadelphia; W. Horace Hoskins, Philadelphia; F. H. Osgood, Boston; S. Stewart, Kansas City, Kan.

*Incorporation.*—A. W. Clement, 982 Cathedral St., Baltimore; C. P. Lyman, 52 Village St., Boston.

*Finance.*—W. Horace Hoskins, Chairman, Philadelphia; Jas. B. Raynor, 135 E. Gay St., W. Chester, Pa.; S. Stewart, Kansas City, Kan.

State and Foreign Corresponding Secretaries, Committees on Intelligence and Education, and Diseases have not yet been appointed.

Yours truly,

F. H. OSGOOD, *President.*

## CORRESPONDENCE.

### THE PASTEUR MONUMENT FUND.

The following letter from Chairman Salmon appeals to every American veterinarian, and we trust all will avail themselves of the honor and privilege of contributing something (however small) toward placing a permanent and suitable memorial to one who has done so much for medical science:

WASHINGTON, D. C., Nov. 24, 1896.

*Fellow Members of the American Veterinary Profession:*

An opportunity has been kindly offered us by the Pasteur Monument Committee of France to contribute to the memorial fund which is now being raised. No one can appreciate more truly than the veterinarian how much Pasteur did for our profession and for humanity, and no other profession can feel a deeper interest in the success of the American subscription. Up to this time the veterinarians of our country have done nothing towards this object, because the subject has not been properly brought to their attention. I now appeal to every member of our profession to contribute something to this fund. Whether it be one dollar or ten dollars, it will testify to the sentiments of the giver and will assist in swelling the fund which we hope will creditably represent the great country in which we live. All contributions should be sent by draft or money order to Dr. E. A. de Schweinitz, Secretary, Pasteur Monument Committee, Cosmos Club, Washington, D. C., who will duly receipt for the same. The subscription must be closed by February, and the Paris committee desires an estimate within a month of the amount that will be contributed in order that the work on the monument may be commenced. Will you not aid the Committee and sustain the reputation of our profession by acting promptly and liberally in this matter of international interest?

D. E. SALMON.

*Chairman Committee on Pasteur Memorial Fund of U. S. Vet. Med. Assoc.*

## NEWS AND ITEMS.

DR. E. D. ROBERTS, of Janesville, Wis., is a candidate for State Veterinarian.

DR. WM. DOUGHERTY, of Baltimore, Md., is convalescent from a recent attack of rheumatism.

DR. M. E. KNOWLES, late veterinarian to Marcus Daly's Bitter Root stock ranch, has located at Butte, Mont.

DR. J. R. KELSO, of Baraboo, Wis., is trying his luck in Milwaukee, as he thinks that a better field for work.

DR. J. P. LAWS, of Madison, Wis., has been re-elected Instructor of Veterinary Science in the University of Wisconsin.

DR. J. W. SALLADE, of Pottsville, Pa., has been reappointed by the Governor a member of the State Board of Veterinary Medical Examiners.

THOMAS J. TURNER, D. V. S., has been transferred from Kansas City to Indianapolis, in charge of inspections for the Bureau of Animal Industry.

THE RIGHT MAN IN THE RIGHT PLACE should be kept there. Therefore, Dr. Robert W. Ellis was re-elected Secretary of the New York County Association at the December meeting.

DR. W. L. ZUILL, of Philadelphia, according to the *Journal of Comparative Medicine*, has recently embarked in the boarding stable business, having become the proprietor of two.

THE CHICAGO VETERINARY SOCIETY will hold a banquet at the Sherman House, at its next regular meeting on Thursday, January 14, 1897. The society numbers now about 40 members.

JOHN FAUST, V. S., the well-known veterinary surgeon of Poughkeepsie, N. Y., addressed the students of the American Veterinary College, Dec. 18th, his subject being "Tuberculosis, its Prevention and Eradication."

EDWIN WILLITS, A. M., LL. D., lecturer upon medical jurisprudence at the United States College of Veterinary Surgeons, Washington, D. C., late Assistant Secretary of Agriculture, and an earnest friend of veterinary science, recently died in Washington.

EIGHT CAMELS belonging to "The Streets of Cairo," an oriental exhibition which was showing at Coney Island, N. Y., last summer, became affected with chronic mange, and were de-

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OBITUARY.—John J. Gleason, son of C. A. Gleason, V. S., of Rye, N. Y., a very bright third-year student at the American Veterinary College, died on Sunday, Dec. 20, after a brief illness. A delegation of his classmates attended the funeral on Tuesday following, and placed upon his grave a wreath of affectionate sorrow.

DR. W. H. HARBAUGH, of Richmond, Va., was elevated to the presidency of the State Board of Veterinary Medical Examiners by the December REVIEW, which the modest veterinarian wishes us to correct, and we do so with pleasure, but desire to assure our readers that he is a very high private and a hard worker in its ranks.

LONG ISLAND VETERINARIANS are joining the Veterinary Medical Association of New York County gradually; two became members at the December meeting. Every graduate in the territory of Greater New York should unite to make this the grandest veterinary medical association in the world, which could be easily accomplished.

RECENT MARRIAGES OF VETERINARIANS.—Dr. Cecil French, of Washington, D. C., to Miss Florence Day, daughter of Mr. Edwin T. Day, barrister, of Montreal, Canada, Sept. 23. . . . Dr. W. L. Rhoads, of Lansdowne, Pa., to Miss Anna M. Moore, of Bromall, Pa., Oct. 14. . . . Dr. Jno. M. Parker, of Haverhill, Mass., to Miss Edith Helen Snell, of the same city, Oct. 27.

NEWTON S. BRYANT, a veterinary surgeon of Kansas City, who was arrested at the New York Horse Show, at the instigation of the New York County Veterinary Medical Association, for practicing without being registered, as detailed in the December REVIEW, was convicted by the Court, and sentence suspended at the request of the Judiciary Committee, they being satisfied with the moral effect of the conviction.

STATE VETERINARIAN TRUMBOWER says Illinois cattle are less troubled with disease than at any time the past year, but swine plague is prevalent in the northern part of the State. During the year's post-mortem inspection at the stock-yards only seventy-eight cases of tuberculosis were found and twenty-one cases of cancer. Carcasses of 802 cattle were passed on post-mortem examinations and 1643 condemned and ordered tanked.

CHESTER KIRKE, described by the Lewiston (Me.) *Evening Journal* as "something of a horse doctor," was arrested and pleaded guilty on Nov. 7th, to the charge of forgery. He owed a board-bill of \$24.50, and forged a hardware dealer's name to a letter addressed to his landlady stating that on account of the doctor's difficulty in collecting, the undersigned assumed responsibility for his indebtedness, which the dealer promptly pronounced a forgery.

THE ALUMNI ASSOCIATION of the Chicago Veterinary College has passed the following resolution to be submitted to the United States Veterinary Medical Association at its next meeting: "*Resolved*, That the graduates of those two-year veterinary schools that inaugurate a three-year course on or before October 1, 1897, will be eligible to membership in the United States Veterinary Medical Association, unless otherwise barred by existing rules of the association."

A NEW DISCOVERY IN SERUM-THERAPEUTICS.—Dr. Marmoreck, of the Pasteur Institute, Paris, reports that equine anasarca has been found by him to be due to a variety of streptococcus. By the subcutaneous injection of the anti-streptococcus serum, as it is used already in human erysipelas and puerperal fever of women, the germs are quickly destroyed, resolution established and all symptoms materially modified. Within a few days after injection, progressive diminution of the swelling sets in, followed by the disappearance of the petechiæ and lowering of temperature. The after-treatment simply consists of judicious feeding and the application of general tonics.

ISN'T IT NAUSEATING?—The following circular has come to our hands: "Wanted—[type two inches deep and a large cut of a well-proportioned horse]—We want every horseman to know that we make a specialty in the treatment of Chronic Lameness, and solicit all such cases as have been pronounced incurable by the Veterinary Profession. Ninety per cent. of such cases are instantly relieved. Strained Tendons, Knuckling, Navicular Disease, Chronic Laminitis, and Diseases of the Osseous Structure can be treated without taking the horse out of work. Our method is entirely new. Call and see us at our Infirmary, 114 E. Wilson St., Madison, Wis. Beattie & Beattie, Graduates of Ontario Veterinary College."

PROF. SCHWARZKOPF INJURED.—We regret to learn that this widely-known veterinarian was so unfortunate as to be thrown from a cable car in Chicago in November, from which he sus-

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tained serious injuries to his back, necessitating a confinement to his bed of two weeks. At first the physicians believed he was maimed for life, but his robust constitution was a safeguard against such a calamity, and we are pleased to announce upon authority of a letter from the patient that he is again at his work as though nothing had happened. In the crisis of veterinary medicine in this country, we cannot afford to lose members of the type of Dr. Schwarzkopf, and we, therefore, advise him to drive his horse in his excursions about the city. It is less dangerous.

NO MORE DOCKING IN QUEEN VICTORIA'S STABLES.—A floating paragraph of foreign intelligence announces the important fact that Queen Victoria has introduced a reformation of the docking practice in her own stables and is employing her puissant resources in the effort to induce H. R. H. the Prince of Wales to follow her example. The statement has more significance than may appear at first blush, for it implies that a blow has been struck at the very root of the inhuman practice. Once thoroughly discountenanced by the adherents of royalty in England it would quickly lose caste among their more or less unpatriotic and servile imitators in the United States. By all means let us applaud the good sense of Her Most Gracious Majesty.—*Trotter and Pacer.*

THE NEW YORK COUNTY ASSOCIATION has in contemplation the issuance of a veterinary medical register, which is to contain a full list of all registered veterinary surgeons in Greater New York, together with a great deal of useful information for veterinarians in regard to laws, regulations, etc., and a certain number of acceptable advertisements, to help defray the expenses of the undertaking. The idea is a good one, and the book will be of a great deal of service, not only to individual veterinarians, but to the profession at large, as the official list of registered names will enable members and others to report persons practicing without a license with the minimum of trouble. Every State association should have a similar list in the hands of every registered veterinarian in the State.

VETERINARIANS IN CHRISTMAS JOURNALS.—The Christmas editions of our large agricultural journals are becoming marvels of beauty. The illustrations are of a high artistic order and the typographical arrangements really luxurious. There is a tendency to bring on this occasion articles from well-known writers, and we note with satisfaction that the veterinary profession

comes in for a good share of this feature. The *Horseman*, for instance, has lengthy contributions from the pens of Dr. Joseph Hughes on "Strains, their Nature, Effect and Treatment"; by Prof. Olof Schwarzkopf on "The Nature and Cause of Glanders"; by Prof. S. J. J. Harger on "The Digestive Organs of the Horse, their Nature, Functions and Diseases"; by Dr. A. S. Alexander on "Hygiene Applied to Breeding," and by Dr. W. E. Bruette on "Juvenile Equine Diseases." While the names of these contributors are sufficient guarantee for excellence of writing, still the skill with which some of these articles have been adapted for the unprofessional reader gives them an original touch and peculiar interest even for veterinarians.

**THE BEAUTIES OF FREEDOM FROM STATE BOARDS OF VETERINARY EXAMINERS.**—The following card reads to-day almost like a dream from far-off ages or long-since past conditions. Still not all States have as yet examining boards. "Joseph Reigner, Veterinary Surgery and Horse Hospital Infirmary. All Diseases of the Horse Successfully Treated or No Pay. 3736 Pearson Ave., Chicago. Moreover, great news to Horsemen: No more lame horses. A new and most scientific discovery, 50 years ahead of the age. Do not hesitate, but come and test these wonders. No Bleeding, Satan, Fireing, Blistering or Nerving. Will give you testimonials, and secure you for your horse, what more do you want, whoever wishes to learn how it is done, come and I will show you how to cure or prevent Spavin, Ringbones, Splints, Enlargement of the Heals, Corns, Stringhalt, Knuckling, Curbs, Sprains of Tendons, Windgalls, Acute Liminitis, Founder, Kneesprung, Weakness, Stumbling, Contracted Hoof, Toroughpin, Navicular Disease, Cutting, Overreaching. Charges moderate, keep the horse at work. If slow during cure, if desired I will buy your lame horses if you don't want them cured for yourself. Ambulance for horses unable to walk. Telephone, Yards 855. References—J. H. Thompson, Contractor, 2194 38th-st Joseph Courvil, Grocer, 2104 38th-st. Joseph Bouffard, 2040 38th-st. Saloon. Samuel Fournier, Grocer, 3821 California-av."

#### BACK NUMBERS OF REVIEW FOR SALE.

The following back numbers are for sale at 25c. each, and can be obtained from the REVIEW office, 141 West 54th Street, New York City:

1889—May, September, October, November. 1890—January, April, May. 1891—January, February, March, April, May, June, July, August, December. 1892—October, December. 1893—January, May, June, July, August, November, December.

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